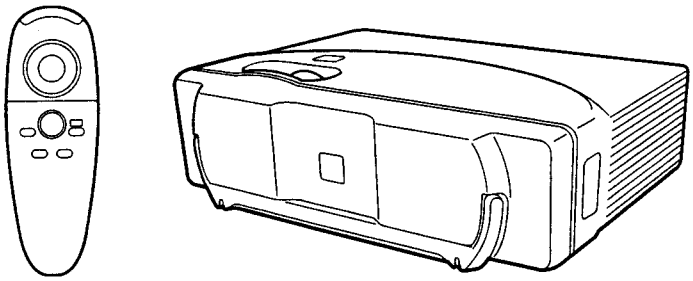
SERVICE MANUAL

MODEL	DEST.
VPL-CS1	WORLD

MODEL	DEST.
RM-PJM1	WORLD



LCD VIDEO PROJECTOR

SONY

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

WARNING!!

AN INSULATED TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY A ⚠ MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION!!

AFIN D'ÉVITER TOUT RISQUE D'ÉLECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ Á L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

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SONY

4-074-278-11 (1)

LCD Data Projector

Operating Instructions ____ GB
Mode d'emploi ____ FR
Manual de instrucciones ____ ES

VPL-CS1

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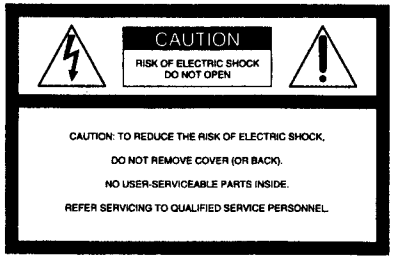
Section 1
Operating Instructions

This section is extracted from operation manual.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For the customers in the USA

Declaration of Conformity

Trade Name: SONY
Model No.: VPL-CS1
Responsible Party: Sony Electronics Inc.
Address: 1 Sony Drive, Park Ridge, NJ.07656 USA
Telephone No.: 201-930-6970

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING

THIS APPARATUS MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Green-and-Yellow: Earth
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol I or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland

Bij dit product zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

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GB

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected to the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes. The air coming out is hot.
- Be careful not to catch your fingers by the adjuster when you lift up the projector. Do not push hard on the top of the projector with the adjuster out.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After you turn off the power with the I / ⏻ key, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Caution

The projector is equipped with ventilation holes (intake) on the bottom side and ventilation holes (exhaust) on left and rear. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Clean the filter at regular intervals.

On repacking

- Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Features

High portability

- **Light weight/small size**
  This projector has been miniaturized to approx. 2.9 kg (6 lb 6 oz) in weight and B5-file size through the adoption of a new retractable mechanism. A carrying handle and a removable strap are equipped with the projector, so you can carry it easily with your computer.

Reduced noise

Because the projector uses a new cooling mechanism, noise has been reduced.

High brightness, high picture quality

- **High brightness**
  Adopting the new developed optical system and the 120 W UHP lamp allows high brightness (light output 600 ANSI lumen) and excellent uniformity on the picture.
- **High resolution**
  Three 0.7-inch, about 480,000 pixel SVGA panels provide a resolution of 800 × 600 dots for RGB input and 600 horizontal TV lines for video input.

Simple setup, easy presentation

- **Simple setup with external equipment**
  This projector is preset for 37 kinds of input signals. You can project images from an external signal source just by connecting the equipment with the supplied cable and pushing the APA key.
- **Simple Remote Commander with mouse control functions**
  You can operate a computer with the Remote Commander since the unit has a build-in mouse receiver.

Compatible with USB (Universal Serial Bus) hub function

You can connect the projector to USB equipment, such as a USB mouse, and control the projector by using the supplied application software from a computer.[1)] Using this application software, you can open a file you want to use for your presentation with the supplied Remote Commander.

Accepts various input signals

- **Scan converter loaded**
  This projector has a build-in scan converter that converts the input signal within 800 × 600 dots.
- **Compatible input signals**
  This projector accepts video signals of composite, S video, and component as well as 15k RGB, VGA, SVGA, XGA, and SXGA signals, which all can be displayed.
- **Compatible with six color systems**
  NTSC, PAL, SECAM, NTSC4.43[2)], PAL-M, or PAL-N color system can be selected automatically or manually.

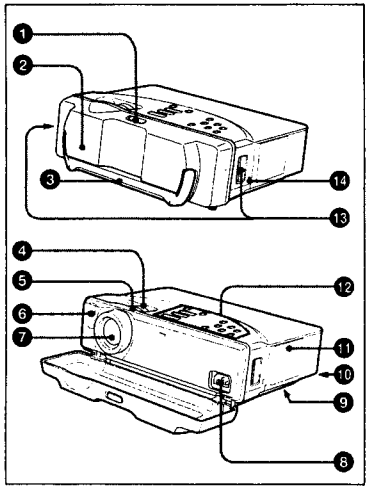
- Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.
- VGA, SVGA, XGA, and SXGA are registered trademarks of the International Business Machines Corporation, U.S.A.
- Macintosh is a registered trademark of Apple Computer, Inc.
- IBM PC/AT is a registered trademark of International Business Machines Corporation, U.S.A.
- VESA is a registered trademark of Video Electronics Standard Association.
- Display Data Channel is a trademark of Video Electronics Standard Association.
- PC-98 is a trademark of NEC Corporation.

1)The supplied application software and the USB hub function of this projector are compatible with Windows 98 preinstall model.

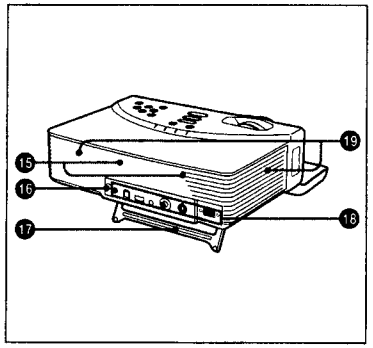
2)NTSC4.43 is the color system used when playing back a video recorded on NTSC on a NTSC4.43 system VCR.

Location and Function of Controls

Front/Left Side/Bottom



Rear/Right Side



❶ Lock button

❷ Front cover
Slide the lock button to open the front cover. The leg on the bottom of the projector opens. When projecting the picture, place the projector on a flat surface with the leg open.

❸ Carrying handle
Pull up the handle from the projector for carrying.

❹ Zoom ring
Adjusts the picture size.

❺ Focus ring
Adjusts the picture focus.

❻ Front remote control detector (SIRCS receiver)

❼ Lens

❽ AC IN socket
Connects the supplied AC power cord.

❾ Ventilation holes (intake)/air filter cover (bottom)

Notes

- Do not place anything near the ventilation holes as it may cause internal heat build-up.
- Do not place your hand or objects near the ventilation holes as it may cause the air coming out heat build-up.
- To maintain optimal performance, **clean the air filter every 300 hours.**

❿ Lamp cover (bottom)

⓫ Ventilation holes (exhaust)

⓬ Control panel
For details, see "Control Panel" on page 10.

⓭ Shoulder strap holder

⓮ Security lock
Connects to an optional security cable (Kensington's).

The security lock corresponds to Kensington's MicroSaver Security System.
If you have any comment, contact:
Kensington
2853 Campus Drive
San Mates, CA 94403
U.S.A.
Tel: 800-535-4242: extension 3348

Home page address:
http://www.kensington.com/

⓯ Speaker

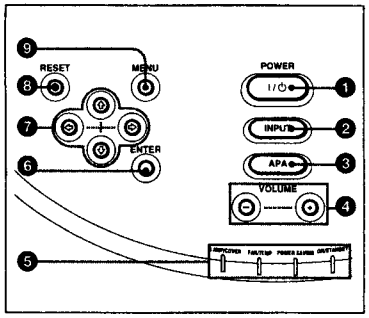
⓰ Rear remote control detector (SIRCS receiver)

⓱ Leg

⓲ Connector panel
For details, see "Connector Panel" on page 11.

⓳ Ventilation holes (intake)

Control Panel



❶ I / ⏻ (on/standby) key

Turns on and off the projector when the projector is in standby mode. The ON/STANDBY indicator lights in green when the power is turned on.
When turning off the power, press the I / ⏻ key twice following the message on the screen, or press and hold the key for about one second.

For details on steps for turning off the power, see "To turn off the power" on page 23.

❷ INPUT key

Selects the input signal. Each time you press the key, the input signal switches between video input and INPUT A connector.

❸ APA (Auto Pixel Alignment) key

Adjusts a picture clearest automatically while a signal is input from a computer.

❹ VOLUME +/– keys

Adjust the volume of the built-in speakers.

+ : Increases the volume.

– : Decreases the volume.

❺ Indicators

- **LAMP/COVER:** Lights up or flashes under the following conditions:
  – Lights up when the lamp has reached the end of its life or becomes a high temperature.
  – Flashes when the lamp cover or air filter cover is not secured firmly.
- **FAN/TEMP (Temperature):** Lights up or flashes under the following conditions:
  – Lights up when temperature inside the projector becomes unusually high.
  – Flashes when the fan is broken.
- **POWER SAVING:** Lights up when the projector is in power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into power saving mode if no signal is input for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In power saving mode, any key does not function for the first 30 seconds. The power saving mode is canceled when a signal is input or any key is pressed.
- **ON/STANDBY:** Lights up or flashes under the following conditions:
  – Lights in red when a AC power cord is plugged into a wall outlet. Once in standby mode, you can turn on the projector with the I / ⏻ key.
  – Lights in green when the power is turned on.
  – Flashes in green while the cooling fan runs after the power is turned off with the I / ⏻ key. The fan runs for about 90 seconds after the power is turned off.
  The ON/STANDBY indicator flashes quickly for the first 30 seconds. During this time, you cannot turn the power back on with the I / ⏻ key.

For details on the LAMP/COVER and the FAN/TEMP indicators, see page 32.

❻ ENTER key

Enters the settings of items in the menu system.

❼ Arrow keys (↑/↓/←/→)

Select the menu or to make various adjustments.

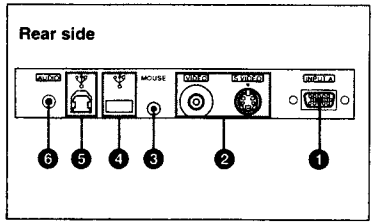
❽ RESET key

Resets the value of an item back to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

❾ MENU key

Displays the on-screen menu. Press again to clear the menu.

Connector Panel



❶ INPUT A connector (HD D-sub 15-pin, female)

Connect to external equipment such as a computer.
Connects to the monitor output on a computer using the supplied cable.
When inputting a component or 15k RGB signal, use an optional cable.

❷ Video input connector

Connect to external video equipment such as a VCR.

- **S VIDEO (mini DIN 4-pin):** Connects to the S video output (Y/C video output) of video equipment.
- **VIDEO (phono type):** Connects to the composite video output of video equipment.

Note

If you connect video equipment to both the S VIDEO and VIDEO jacks, the signal from the S VIDEO jack is selected. When projecting the picture via the VIDEO jack, be sure not to connect a cable to the S VIDEO jack.

❸ MOUSE connector (6-pin)

Connects to the PS/2 mouse port on a computer via the supplied mouse cable, to control the mouse function of the connected computer.

❹ USB connector (USB A-plug for downstream, 4-pin)

Connect to USB equipment such as a mouse, camera, etc.

❺ USB connector (USB B-plug for upstream, 4-pin)

Connect to the USB connector on a computer. When you connect the projector to the computer, the projector recognizes the mouse of the computer connected to the INPUT A connector and you can control the mouse function with the supplied Remote Commander. The supplied application software can be installed in the computer attached to this connector.

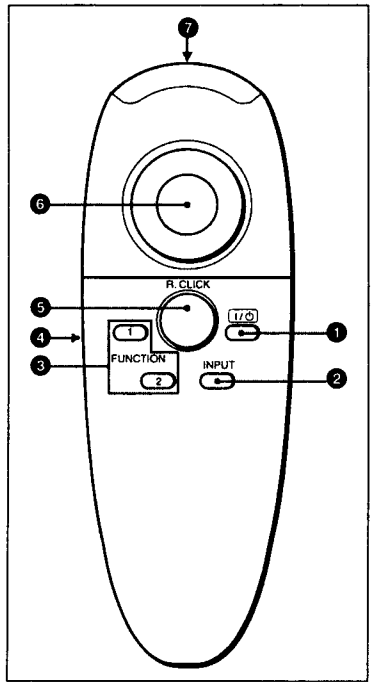
❻ AUDIO (stereo minijack) connector

When listening to sound output from the computer, connect to the audio output of the computer.
When listening to sound output from the VCR, connect to the audio output of the VCR.
This connector functions as the audio input of the INPUT A, VIDEO and S VIDEO connectors.

Remote Commander

The keys that have the same names as those on the control panel function identically. You can control a connected computer using the Remote Commander.

For details, see "To control the computer using the supplied Remote Commander" on page 22.



❶ I / ⏻ key

❷ INPUT key

❸ FUNCTION 1, 2 keys

When you have saved a file in the FUNCTION 1 or 2 key using the supplied application software, you can open the file with a press of the corresponding key.

For details, see the README file and the HELP file supplied with the application software.

❹ L CLICK key

Functions as the left button on a mouse.

❺ R CLICK key

Functions as the right button on a mouse.

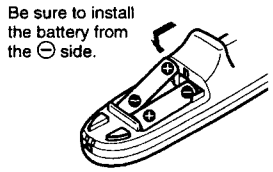
❻ Joystick

Functions as the mouse of the computer connected to the unit.

❼ Infrared transmitter

To install batteries

1 Push and slide to open the lid, then install the two size AAA (R03) batteries (supplied) with the correct polarity.



2 Replace the lid.

Notes on batteries

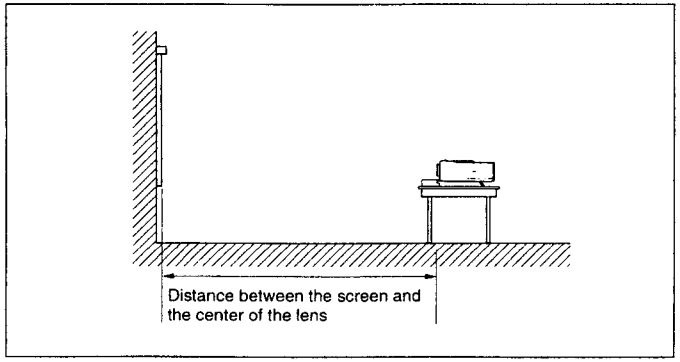
- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix an old battery with a new one or different types of batteries.
- If you do not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe and dry the battery compartment, and replace the batteries with new ones.

Notes on Remote Commander operation

- Make sure that nothing obstructs the infrared beam between the Remote Commander and the remote control detector on the projector. Direct the Remote Commander toward the front or rear remote control detector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector is, the wider the angle within which the commander can control the projector becomes.

Installing the Projector

This section describes how to install the projector.
The distance between the lens and the screen varies depending on the size of the screen. Use the following table as a guide.



Unit: m (feet)

Screen size (inches)	40	60	80	100	120	150
Minimum Distance	1.6 (5.2)	2.4 (7.8)	3.2 (10.5)	4.0 (13.2)	4.9 (15.9)	6.1 (20.0)
Maximum Distance	2.0 (6.6)	3.1 (10.0)	4.1 (13.5)	5.2 (16.9)	6.2 (20.3)	7.8 (25.5)

Note

You can not install the projector upside down, such as on a ceiling.

Connecting the Projector

When making connections, be sure to do the following:

- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Note

Supplied mouse cables may not work properly according to your computer.

Connecting with a Computer

This section describes how to connect the projector to a computer.
For more information, refer to the computer's instruction manual.

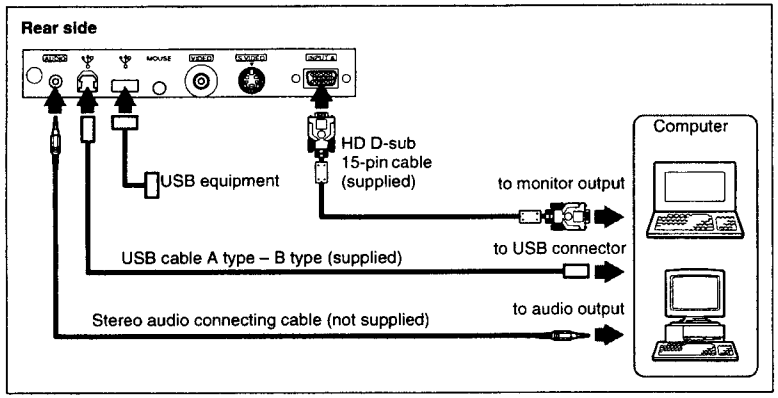
Notes

- The projector accepts VGA, SVGA, XGA, and SXGA signals. However, we recommend that you set the output mode of your computer to SVGA mode for the external monitor.
- If you set your computer, such as a notebook type, to output the signal to both your computer's display and the external monitor, the picture of the external monitor may not appear properly. Set your computer to output the signal to only the external monitor.
  For details, refer to the computer's operating instructions supplied with your computer.
- Supplied mouse cables may not work properly according to your computer.
- This projector is compatible with a DDC2B (Digital Data Channel 2B). If your computer is compatible with a DDC, turn the projector on according to the following procedures.

1 Connect the projector to the computer by using the supplied HD D-sub 15 pin cable.
2 Turn the projector on.
3 Start the computer.

To connect an IBM PC/AT compatible computer

When you use a USB mouse and USB equipment



Notes

- When you use the supplied application software, connect your computer as illustrated above. This application software and the USB hub function can be used on a computer loaded with Windows 98 preinstall model.
- As the projector recognizes the USB mouse when the computer is connected to the USB connector, do not connect anything to the PS/2 mouse port.
- Your computer may not start correctly when it has been connected to the USB connector on the projector via the USB cable. In this case, first disconnect the USB cable, restart the computer, then connect the computer to the projector using the USB cable supplied with the projector.

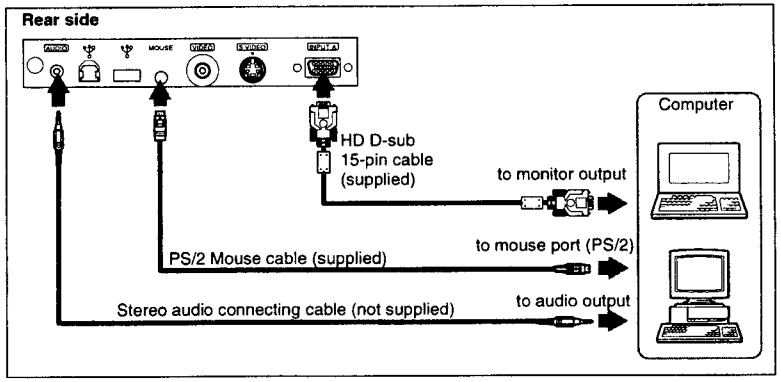
On the USB hub function

When connecting the projector to a computer by using the USB cable for the first time, the computer recognizes the following devices automatically.

1 USB hub (general use)
2 USB human interface device (wireless mouse function)
3 USB human interface device (projector control function)

Excepting these devices above mentioned, the computer recognizes the device connected to the downstream connector on the projector.

When you use a PS/2 mouse port



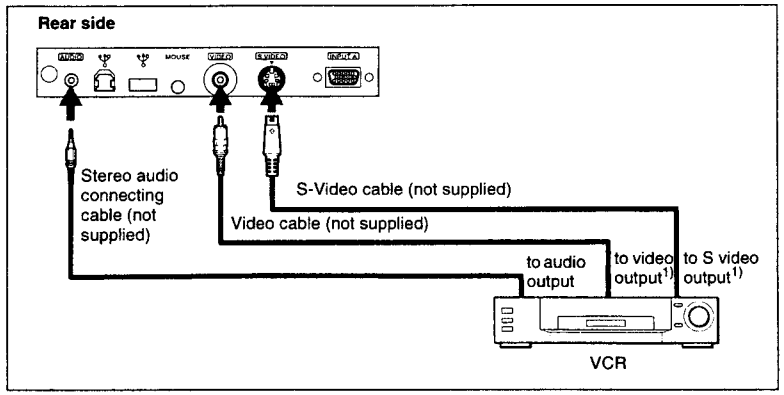
To connect a Macintosh computer

Use an ADP-20 signal adapter (not supplied). In this case, however, you can not control the mouse of the computer by the Remote Commander.

Connecting with a VCR or 15k RGB/Component Equipment

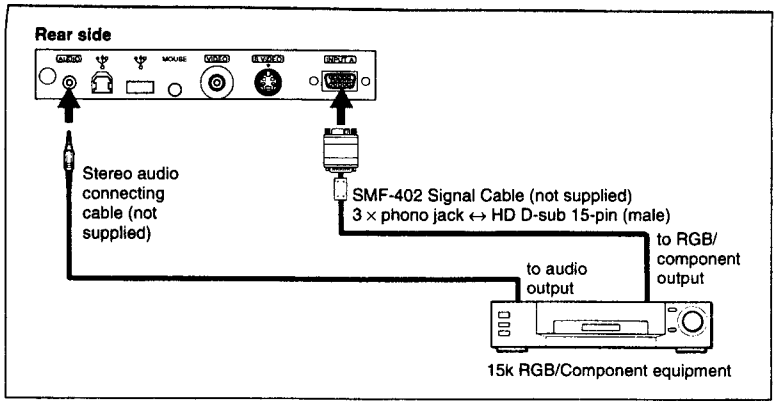
This section describes how to connect the projector to a VCR and 15k RGB/component equipment.
For more information, refer to the instruction manuals of the equipment you are connecting.

To connect a VCR



1)When both the S VIDEO and VIDEO jacks are connected to the external equipment, the input signal from the S VIDEO jack is selected.

To connect a 15k RGB/Component equipment

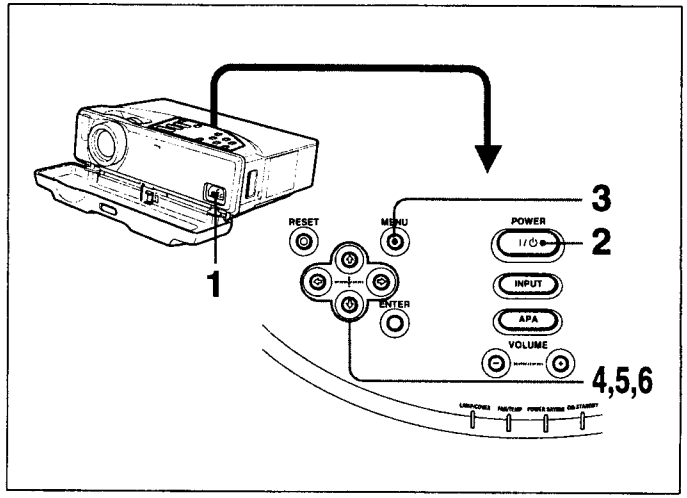

Rear side
Stereo audio connecting cable (not supplied)
SMF-402 Signal Cable (not supplied)
3 × phono jack ↔ HD D-sub 15-pin (male)
to RGB/ component output
to audio output
15k RGB/Component equipment

Notes

- Set the aspect ratio using ASPECT in the INPUT SETTING menu according to the input signal.
- When you connect the unit to 15k RGB/component video equipment, select RGB or component with the INPUT-A setting in the SET SETTING menu.
- Use the composite sync signal when you input the external sync signal from 15k RGB/component equipment.

Selecting the Menu Language

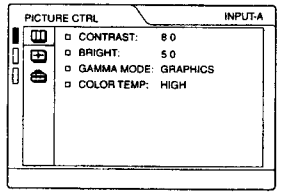
You can select one of seven languages for displaying the menu and other on-screen displays. The factory setting is English.



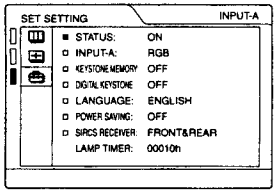
1 Open the front cover, then plug the AC power cord into a wall outlet.

2 Press the I / ⏻ key to turn on the projector.

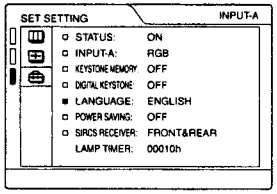
3 Press the MENU key.
The menu appears.
The menu presently selected is shown as a yellow button.



4 Press the ↑ or ↓ key to select the SET SETTING menu, then press the → or ENTER key.
The selected menu appears.



5 Press the ↑ or ↓ key to select "LANGUAGE," then press the → or ENTER key.

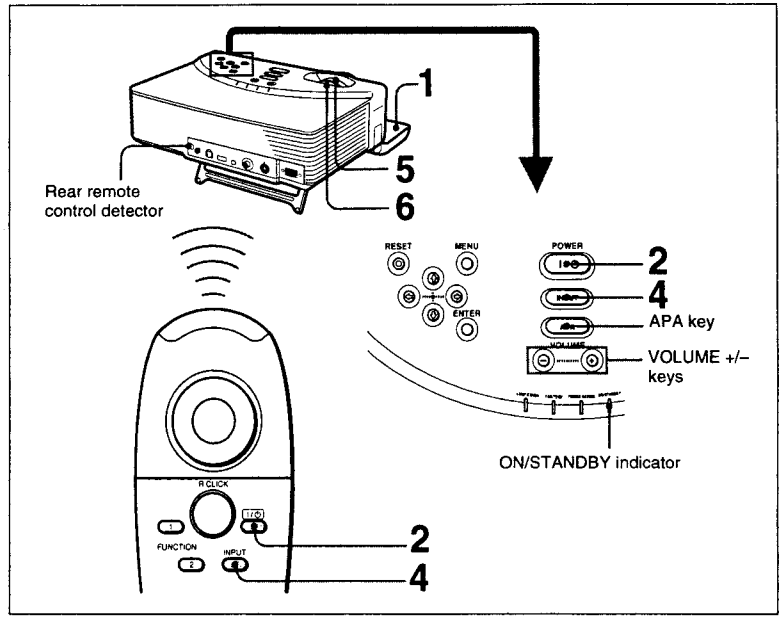


6 Press the ↑ or ↓ key to select a language, then press the ← or ENTER key.
The menu changes to the selected language.

To clear the menu

Press the MENU key.
The menu disappears automatically if a key is not pressed for one minute.

Projecting



1 Open the front cover, plug the AC power cord into a wall outlet, then connect all equipment.
The ON/STANDBY indicator lights in red and the projector goes into standby mode.

2 Press the I / ⏻ key.
The ON/STANDBY indicator lights in green.

3 Turn on the equipment connected to the projector.

4 Press the INPUT key to select the input source.

To input from	Press INPUT to display
Computer connected to the INPUT A connector	INPUT A
Video equipment connected to the video[1] input connector	VIDEO

1) If you connect to both the S VIDEO and VIDEO jacks, the signal from the S VIDEO jack is selected.

5 Turn the zoom ring to adjust the size of the picture.

6 Turn the focus ring to adjust the focus.

Caution

Looking into the lens when projecting may cause injury to your eyes.

To adjust the volume

Press VOLUME +/– keys on the control panel.

To control the computer using the supplied Remote Commander

When you connect an IBM PC/AT compatible to the projector, you can control the mouse of the computer using the Remote Commander.
The R/L CLICK keys and joystick function as follows.

Key and joystick	Function
R CLICK (front)	Right button
L CLICK (rear)	Left button
Joystick	Corresponds with the movements of the mouse

Note

Make sure that nothing obstructs the infrared beam between the Remote Commander and the remoter control detector on the projector.

To get the clearest picture

You can adjust picture quality when projecting a signal from the computer.

1 Project a still picture from the computer.

2 Press the APA key.
"Complete!" appears on the screen when the picture is adjusted properly.

Notes

- Press the APA key when the full image is displayed on the screen. If there are black edges around the image, the APA function will not function properly and the image may extend beyond the screen.
- When you switch the input signal or re-connect a computer, press the APA key again to adjust the picture again.
- You can cancel the adjustment by pressing the APA key again while "ADJUSTING" appears on the screen.
- The picture may not be adjusted properly depending on the kinds of input signals.
- Adjust the items in the INPUT SETTING menu when you adjust the picture manually.

To turn off the power

1 Press the I / ⏻ key.
"POWER OFF? Please press I / ⏻ key again." appears to confirm that you want to turn off the power.

Note

A message disappears if you press any key except the I / ⏻ key, or if you do not press any key for five seconds.

2 Press the I / ⏻ key again.
The ON/STANDBY indicator flashes in green and the fan continues to run for about 90 seconds to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly for the first 30 seconds. During this time, you will not be able to turn the power back on with the I / ⏻ key.

3 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.

When you cannot confirm the on-screen message

When you cannot confirm the on-screen message in a certain condition, you can turn off the power by holding the I / ⏻ key for about one second.

Note

Do not unplug the AC power cord while the fan is still running; otherwise, the fan will stop even though the internal heat is still high, which could result in a breakdown of the projector.

To stow the leg on the bottom

If you are not going to use the projector, close the front cover first and then fold up the leg on the bottom of the projector manually at the end.

On air filter

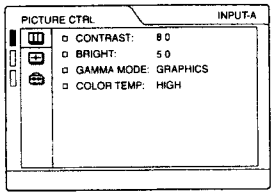
To maintain optimal performance, **clean the air filter every 300 hours.**

Using the MENU

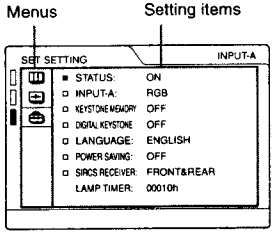
The projector is equipped with an on-screen menu for making various adjustments and settings. You can perform all of the menu operation with the control panel on this unit. Also, you can change the menu language displayed in the on-screen menu.

To change the menu language, see "Selecting the Menu Language" on page 19.

1 Press the MENU key.
The menu appears.
The menu presently selected is shown as a yellow button.



2 Use the ↑ or ↓ key to select a menu, then press the → or ENTER key.
The selected menu appears.



3 Select an item.
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.

4 Make the setting or adjustment on an item.

- When changing the adjustment level:
  To increase the number, press the ↑ or → key.
  To decrease the number, press the ↓ or ← key.
  Press the ENTER key to restore the original screen.
- When changing the setting:
  Press the ↑ or ↓ key to change the setting.
  Press the ENTER or ← key to restore the original screen.

To clear the menu

Press the MENU key.
The menu disappears automatically if a key is not pressed for one minute.

To reset items that have been adjusted

Press the RESET key.
"Complete!" appears on the screen and the settings appearing on the screen are reset to their factory preset values.
Items that can be reset are:

- "CONTRAST," "BRIGHT," "COLOR," "HUE," and "SHARP" in the PICTURE CTRL menu
- "DOT PHASE," "SIZE," and "SHIFT" in the INPUT SETTING menu.
- "DIGITAL KEYSTONE" in the SET SETTING menu.

About the memory of the settings

The settings are automatically stored in the projector memory.

If no signal is input

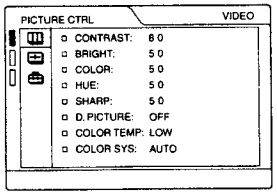
If there is no input signal, "NO INPUT– Cannot adjust this item." appears on the screen.

The PICTURE CTRL Menu

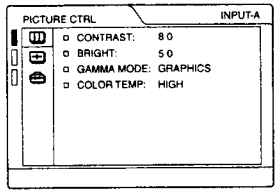
The PICTURE CTRL (control) menu is used for adjusting the picture.
Items that cannot be adjusted depending on the input signal are not displayed in the menu.

For details on the unadjustable items, see page 38.

When the video signal is input



When the RGB signal is input



Menu Items

CONTRAST

Adjusts the picture contrast. The higher the setting, the greater the contrast. The lower the setting, the lower the contrast.

BRIGHT

Adjusts the picture brightness. The higher the setting, the brighter the picture. The lower the setting, the darker the picture.

COLOR

Adjusts color intensity. The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.

HUE

Adjusts color tones. The higher the setting, the picture becomes greenish. The lower the setting, the picture becomes purplish.

SHARP

Adjusts the picture sharpness. The higher the setting, the sharper the picture. The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.

ON: Emphasizes the black color to produce a bolder "dynamic" picture.

OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

GAMMA MODE

Selects a gamma correction curve.

GRAPHICS: Improves the reproduction of halftones. Photos can be reproduced in natural tones.

TEXT: Contrasts black and white. Suitable for images that contain lots of text.

COLOR TEMP

Adjusts the color temperature.

HIGH: Makes the white color bluish.

LOW: Makes the white color reddish.

COLOR SYS (System)

Selects the color system of the input signal.

- **AUTO:** NTSC3.58, PAL, SECAM and NTSC4.43 (switched automatically)
- **PAL-M/N:** PAL-M/PAL-N and NTSC3.58 (switched automatically)

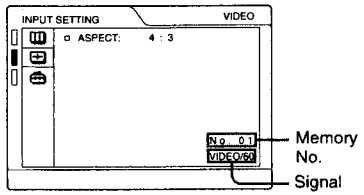
Normally, set to AUTO. If the picture is distorted or colorless, select the color system according to the input signal.

The INPUT SETTING Menu

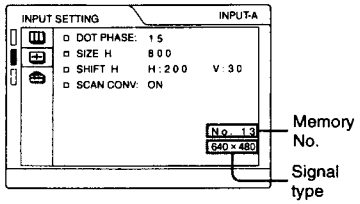
The INPUT SETTING menu is used to adjust the input signal.
Items that cannot be adjusted depending on the input signal are not displayed in the menu.

For details on the unadjustable items, see page 38.

When the video signal is input



When the RGB signal is input



MENU Items

DOT PHASE

Adjusts the dot phase of the LCD panel and the signal input from the INPUT A connector.
Adjust the picture further for finer picture after the picture is adjusted by pressing the APA key.
Adjust the picture to where it looks clearest.

SIZE

Adjusts the horizontal size of picture input from the INPUT A connector. The higher the setting, the larger the horizontal size of the picture. The lower the setting, the smaller the horizontal size of the picture. Adjust the setting according to the dots of the input signal.

For details on the suitable value for the preset signals, see page 39.

SHIFT

Adjusts the position of the picture input from the INPUT A connector. H adjusts the horizontal position of the picture.V adjusts the vertical position of the picture. As the setting for H increases, the picture moves to the right, and as the setting decreases, the picture moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, the picture moves down. Use the ← or the → key to adjust the horizontal position and the ↑ and ↓ key for the vertical position.

SCAN CONV (Scan converter)

Converts the signal to display the picture according to the screen size.

ON: Displays the picture according to the screen size. The picture will lose some clarity.

OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

When SVGA, XGA or SXGA signal is input, this item will not be displayed.

ASPECT

Sets the aspect ratio of the picture. When inputting 16:9 (squeezed) signal from equipment such as a DVD player, set to 16:9.

4:3: When the picture with ratio 4:3 is input.

16:9: When the picture with ratio 16:9 (squeezed) is input.

About the Preset Memory No.

This projector has 37 types of preset data for input signals for INPUT-A (the preset memory). When a preset signal is input, the projector automatically detects the signal type and recalls the data for the signal from the preset memory to adjust it to an optimum picture. The memory number and signal type of that signal are displayed in the INPUT SETTING menu. You can also adjust the preset data through the INPUT SETTING menu.
This projector has 20 types of user memories for INPUT-A into which you can save the setting of the adjusted data for an unpreset input signal.
When an unpreset signal is input for the first time, a memory number is displayed as 00.
When you adjust the data of the signal in the INPUT SETTING menu, it will be registered to the projector. If more than 20 user memories are registered, the newest memory always overwrites the oldest one.

See the chat on page 39 to find if the signal is registered to the preset memory.

Since the data is recalled from the preset memory about the following signals, you can use these preset data by adjusting SIZE. Make fine adjustment by adjusting SHIFT.

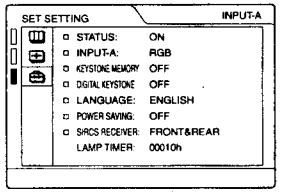
Signal	Memory No.	SIZE
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19"	25	1328
Macintosh 21"	28	1456
Sony News	36	1708
PC-9821 1280 × 1024	36	1600
WS Sunmicro	37	1664

Note

When the aspect ratio of input signal is other than 4:3, a part of the screen is displayed in black.

The SET SETTING Menu

The SET SETTING menu is used for changing the settings of the projector.



Menu Items

STATUS (on-screen display)

Sets up the on-screen display.

ON: Shows all of the on-screen displays.

OFF: Turns off the on-screen displays except for the menus, a message when turning off the power, and warning messages.

INPUT-A

Selects the RGB or component signal input from the INPUT A connector.

Note

If the setting is not correct, "Please check INPUT-A setting." appears on the screen and the color of the picture becomes strange or the picture is not displayed.

KEYSTONE MEMORY

Memorizes the data adjusted with DIGITAL KEYSTONE.

DIGITAL KEYSTONE

Adjusts trapezoidal distortion of the picture that may occur depending on the projection angle.

When the upside of the trapezoid is longer than the downside ▽ **:** Sets to a plus value.

LANGUAGE

Selects the language used in the menu and on-screen displays. Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

POWER SAVING

When set to ON, the projector goes into power saving mode if no signal is input for 10 minutes.

SIRCS RECEIVER

Selects the remote control detectors (SIRCS receiver) on the front and rear of the projector.

FRONT & REAR: Activates both the front and rear detectors.

FRONT: Activates the front detector only.

REAR: Activates the rear detector only.

LAMP TIMER

Indicates the total number of hours for which the lamp currently used has been operated.

Maintenance

Replacing the Lamp

When it is time to replace the lamp, replace the lamp promptly with a new LMP-C120 Projector Lamp.

When replacing the lamp after using the projector

Turn off the projector, then unplug the power cord.
Wait for at least an hour for the lamp to cool.

Caution

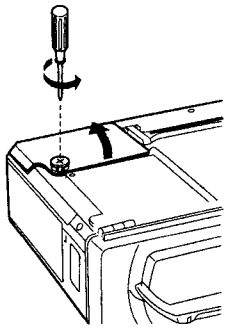
The lamp becomes a high temperature after turning off the projector with the I / ⏻ key. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool.

1 Place a protective sheet (cloth) beneath the projector. Turn the projector over so you can see its underside.

Note

Be sure that the projector is stable after turning it over.

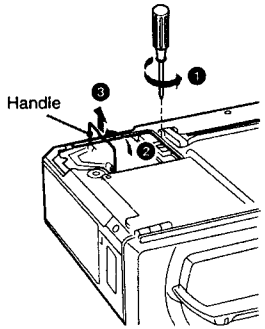
2 Open the lamp cover by loosening a screw with the Phillips screwdriver (supplied with the LMP-C120 Projector Lamp).



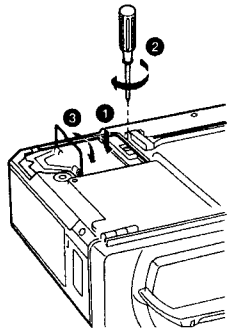
Note

For safety sake, do not loosen any other screws.

3 Loosen the screw on the lamp unit with the Phillips screwdriver. Pull out the lamp unit by the handle.



4 Insert the new lamp all the way in until it is securely in place. Tighten the screw. Fold up the handle.



Notes

- Be careful not to touch the glass surface of the lamp.
- The power will not turn on if the lamp is not secured properly.

5 Close the lamp cover and tighten the screws.

6 Turn the projector back over.

7 Connect the power cord and turn the projector to standby mode.

8 Press the following keys on the control panel in the following order for less than five seconds each: RESET, ←, →, ENTER.

Notes

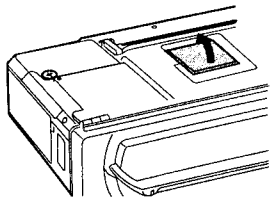
- Be sure to use the LMP-C120 Projector Lamp for replacement. If you use lamps other than LMP-C120, the projector may cause a malfunction.
- Be sure to turn off the projector and unplug the power cord before replacing the lamp.
- Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.

Cleaning the Air Filter

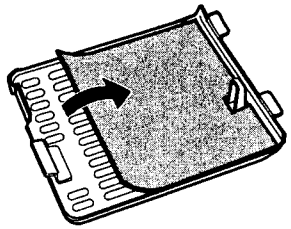
The air filter should be cleaned every 300 hours. When it becomes difficult to remove the dust from the filter, replace the filter with a new one.
To clean the air filter, follow the steps below:

1 Turn off the power and unplug the power cord.

2 Turn the projector over.



3 Remove the air filter cover.



4 Remove the dust from the filter with a vacuum cleaner.

5 Attach the air filter and replace the cover.

Notes

- If the air filter is excessively dirty, wash it with mild detergent solution and dry it in a shaded place. If the dust cannot be removed, replace the air filter with the supplied new one.
- Be sure to attach the air filter cover firmly; the power will not be turned on if it is not closed securely.
- The air filter has a face and a reverse side. Place the air filter so that it fits in a notch on the air filter cover.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem using the following instructions. If the problem persists, consult with qualified Sony personnel.

Power

Symptom	Cause and Remedy
The power is not turned on.	• The power has been turned off and on with the I / ⏻ key at a short interval. → Wait for about 90 seconds before turning on the power (see page 23). • The lamp cover is detached. → Close the lamp cover securely (see page 29). • The air filter cover is detached. → Close the air filter cover securely (see page 30).
Both the LAMP/COVER and FAN/TEMP indicators light up.	• The electrical system breaks down. → Consult with qualified Sony personnel.

Picture

Symptom	Cause and Remedy
No picture.	• Cable is disconnected or the connections are wrong. → Check that the proper connections have been made (see page 15). • Input selection is incorrect. → Select the input source correctly using the INPUT key (see page 21). • The computer signal is not set to output to an external monitor. → Set the computer signal to output to an external monitor (see page 15). • The computer signal is set to output to both the LCD of the computer and external monitor. → Set the computer signal to output only to the external monitor (see page 15).
The picture is noisy.	• Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the LCD panel. → Change the desktop pattern on the connected computer.
The picture from INPUT A connector is colored strange.	• Setting for INPUT-A in the SET SETTING menu is incorrect. → Select RGB or COMPONENT for INPUT-A in the SET SETTING menu according to the input signal (see page 27).
"Please check INPUT-A setting." appears in spite of inputting the correct signal from INPUT A.	• Setting for INPUT-A in the SET SETTING menu is incorrect. → Select RGB or COMPONENT for INPUT-A in the SET SETTING menu according to the input signal (see page 27).
On-screen display does not appear.	• STATUS in the SET SETTING menu has been set to OFF. → Set STATUS in the SET SETTING menu to ON (see page 27).

Symptom	Cause and Remedy
Color balance is incorrect.	• Picture has not been adjusted properly. → Adjust the picture (see page 25). • Projector is set to wrong color system. → Set COLOR SYS in the PICTURE CTRL menu to match the color system being input (see page 25).
The picture is too dark.	• Contrast or brightness has not been adjusted properly. → Adjust the contrast or brightness in the PICTURE CTRL menu properly (see page 25).
The picture is not clear.	• Picture is out of focus. → Adjust the focus (see page 22). • Condensation has occurred on the lens. → Leave the projector for about two hours with the power on.
The picture appears too small on the screen.	• SHIFT in the INPUT SETTING menu has not been adjusted properly. → Adjust SHIFT in the INPUT SETTING menu properly (see page 26).
The picture flickers.	• DOT PHASE in the INPUT SETTING menu has not been adjusted properly. → Adjust DOT PHASE in the INPUT SETTING menu properly (see page 26).

Sound

Symptom	Cause and Remedy
No sound.	• Cable is disconnected or the connections are wrong. → Check that the proper connections have been made (see page 15).
When sound is input through AUDIO connector, sound comes through one channel only.	• Monaural sound is being input through the AUDIO connector. → Input stereo sound.

Remote Commander

Symptom	Cause and Remedy
The Remote Commander does not work.	• The Remote Commander batteries are dead. → Replace with new batteries (see page 12). • The front/rear remote control detector is near the fluorescent lamp. → Change the setting of SIRCS RECEIVER in the SET SETTING menu (see page 28).
The joystick, R CLICK, or L CLICK key does not function.	• The mouse port on the computer does not recognize the mouse cable. → Restart the computer.

Others

Symptom	Cause and Remedy
The LAMP/COVER indicator flashes.	• The lamp cover or the air filter cover is detached. → Attach the cover securely (see page 29).
The LAMP/COVER indicator lights up.	• The lamp has reached the end of its life. → Replace the lamp (see page 29). • The lamp becomes a high temperature. → Wait for 90 seconds to cool down the lamp and turn on the power again (see page 29).
The FAN/TEMP indicator flashes.	• The fan is broken. → Consult with qualified Sony personnel.
The FAN/TEMP indicator lights up.	• The internal temperature is unusually high. → Check to see if nothing is blocking the ventilation holes.
Both the LAMP/COVER and FAN/TEMP indicators light up.	• The electrical system breaks down. → Consult with qualified Sony personnel.

Warning Messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning and Remedy
High temp.! Lamp off in 1 min.	• Internal temperature is too high. → Turn off the power. → Check to see if nothing is blocking the ventilation holes.
Frequency is out of range!	• This input signal cannot be projected as the frequency is out of the acceptable range of the projector. → Input a signal that is within the range of the frequency. • The resolution setting of the output signal of a computer is too high. → Set the setting of output to SVGA (see page 15).
Please check INPUT-A setting.	• You have input RGB signal from the computer when INPUT-A in the SET SETTING menu is set to COMPONENT. → Set INPUT-A correctly (see page 27).

Caution Messages

Use the list below to check the meaning of the messages displayed on the screen.

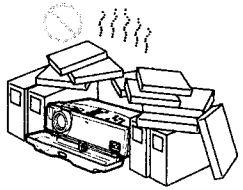
Message	Meaning and Remedy
NO INPUT	• No input signal → Check connections (see page 15).
Not applicable!	• You have pressed the wrong key. → Press the appropriate key.

Notes on Installation

Unsuitable Installation

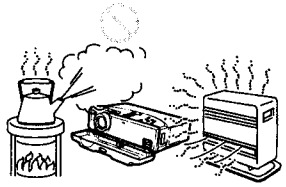
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Poorly ventilated



- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. When the internal heat builds up due to the block-up, the temperature sensor will function with the message "High temp.! Lamp off in 1 min." The power will be turned off automatically after one minute.
- Leave space of more than 30 cm (11 7/8 inches) around the unit.
- Be careful that the ventilation holes may inhale tininess such as a piece of paper.

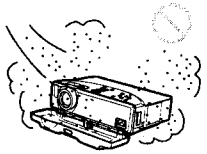
Highly heated and humid



- Avoid installing the unit in a location where the temperature or humidity is very high, or temperature is very low.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

Very dusty

Avoid installing the unit in a location where there is a lot of dust; otherwise, the air filter will be obstructed. The dust blocking the air through the filter may cause raising the internal heat of the projector. Clean it up periodically.

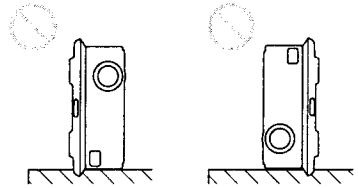


Unsuitable Conditions

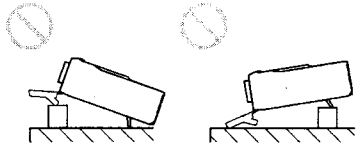
Do not use the projector under the following conditions.

Toppling the unit

Avoid using as the unit topples over on its side. It may cause malfunction.

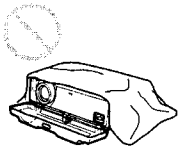


Tilting the unit



Do not install the unit other than on the floor. Avoid using as the unit tilts upward or downward. These installation may cause malfunction.

Blocking the ventilation holes



Avoid using something to cover over the ventilation holes (exhaust/intake); otherwise, the internal heat may build up.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, projection system
LCD panel	0.7-inch TFT LCD panel, 1,440,000 pixels (480,000 pixels × 3)
Lens	1.3 times zoom lens f 28.7 to 37.4 mm/F 1.7 to 2.1
Lamp	120 W UHP
Projection picture size	Range: 40 to 150 inches (diagonal measure)
Light output	ANSI lumen[1] 600 lm
Throwing distance (When the SVGA signal is input)	40-inch: 1580 to 2010 mm (62 1/4 to 78 25/32 inches) 60-inch: 2390 to 3060 mm (94 1/8 to 120 1/2 inches) 80-inch: 3210 to 4100 mm (126 1/2 to 161 1/2 inches) 100-inch: 4030 to 5150 mm (158 11/16 to 202 7/8 inches) 120-inch: 4850 to 6200 mm (191 to 244 1/8 inches) 150-inch: 6080 to 7780 mm (239 1/2 to 306 3/8 inches)

1) ANSI lumen is a measuring method of American National Standard IT 7.228.

Electrical characteristics

Color system	NTSC3.58/PAL/SECAM/ NTSC4.43/PAL-M/PAL-N system, switched automatically/ manually
Resolution	600 horizontal TV lines (Video input) 800 × 600 dots (RGB input)
Acceptable computer signals	fH: 15 to 91 kHz fV: 43 to 85 Hz
Speaker	Stereo speakers system, 36 mm (1 7/16 inches) diameter, max. 0.5 W × 2

Input/Output

Video input
- VIDEO: phono type
  Composite video: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
- S VIDEO: Y/C mini DIN 4-pin type (male)
  Y (luminance): 1 Vp-p ±2 dB sync negative (75 ohms terminated)
  C (chrominance): burst 0.286 Vp-p ±2 dB (NTSC) (75 ohms terminated), burst 0.3 Vp-p ±2 dB (PAL) (75 ohms terminated)

INPUT A: HD D-sub15-pin (female)
Analog RGB/component:
R/R-Y: 0.7 Vp-p ±2 dB (75 ohms terminated)
G: 0.7 Vp-p ±2 dB (75 ohms terminated)
G with sync/Y: 1 Vp-p ±2 dB sync negative (75 ohms terminated)
B/B-Y: 0.7 Vp-p ±2 dB (75 ohms terminated)
SYNC/HD:
Composite sync input: 1-5 Vp-p high impedance, positive/negative
Horizontal sync input: 1-5 Vp-p high impedance, positive/negative
VD:
Vertical sync input: 1-5 Vp-p high impedance, positive/negative

MOUSE: 6-pin (female)
(For details, see "Input signals and adjustable/setting items" on page 38.)

AUDIO: Stereo minijack
500 mVrms, impedance more than 47 kilohms

USB hub: Up (B type: female) × 1
Down (A type: female) × 1

Safety regulations:
UL1950, CSA No. 950, FCC Class B, IC Class B
NEMKO EN60950, CE, C-Tick, CCIB

General

Dimensions 277 × 70 × 214 mm (11 × 2 7/8 × 8 1/2 inches) (w/h/d) (with the front cover closed, without the projection parts)

Mass Approx. 2.9 kg (6 lb 6 oz) (without strap)

Power requirements
AC 100 to 240 V, 1.9–0.8A, 50/60 Hz

Power consumption
Max. 190 W
(Standby mode: 4.2 W)

Heat dissipation
648.4 BTU

Operating temperature
0°C to 35°C (32°F to 95°F)

Operating humidity
35% to 85% (no condensation)

Storage temperature
–20°C to 60°C (–4°F to 140°F)

Storage humidity
10% to 90%

Supplied accessories
Remote Commander RM-PJM1 (1)
Size AAA (R03) batteries (2)
HD D-sub 15 pin (2 m) (1)
PS/2 Mouse Cable (2 m) (1)
USB cable A type – B type (1)
Application software (1)
Carrying case (1)
AC power cord (1)
Air filter (for replacement) (1)
Operating Instructions (1)
Quick Reference Card (1)

Design and specifications are subject to change without notice.

Optional accessories

Projector Lamp LMP-C120 (for replacement)

Signal Cable SMF-402 (HD D-sub 15-pin (male) ⟷ 3 × phono type (male))

Monitor Cable SMF-410 (HD D-sub 15 pin (male) ⟷ HD D-sub 15 pin (male))

Signal Adapter
ADP-20 (Macintosh ⟷ HD D-sub 15-pin)

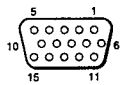
Screens
50-inch Portable Screen VPS-50C[1)]
100-inch Flat Screen VPS-100FH
120-inch Flat Screen VPS-120FH

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

1) VPS-50C may not be available in some areas. For details, please consult your nearest Sony office.

Pin assignment

INPUT A connector (HD D-sub 15-pin, female)



1	R/R-Y	9	N.C.
2	G/Y	10	GND
3	B/B-Y	11	GND
4	GND	12	N.C.
5	GND	13	HD/C.Sync
6	GND (R)	14	VD
7	GND (G)	15	N.C.
8	GND (B)		

MOUSE connector (6-pin, female)

1	DATA
2	N.C.
3	GND
4	+5V
5	CLK
6	N.C.

Input signals and adjustable/ *setting items*

PICTURE CTRL menu

Item	Input signal			
	Video or S video (Y/C)	Component	RGB	B&W
CONTRAST	●	●	●	●
BRIGHT	●	●	●	●
COLOR	●	●	–	–
HUE	● (NTSC 3.58/ 4.43 only)	–	–	–
SHARP	●	●	–	●
D. PICTURE	●	●	–	●
GAMMA MODE	–	–	●	–
COLOR TEMP	●	●	●	●
COLOR SYS	●	–	–	●

● : Adjustable/can be set
– : Not adjustable/cannot be set

INPUT SETTING menu

Item	Input signal			
	Video or S video (Y/C)	Component	RGB	B&W
DOT PHASE	–	–	●	–
SIZE	–	–	●	–
SHIFT	–	–	●	–
SCAN CONV	–	–	●	–
ASPECT	●	●	–	●

● : Adjustable/can be set
– : Not adjustable/cannot be set

Preset signals

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE
1	Video 60 Hz		15.734	59.940		
2	Video 50 Hz		15.625	50.000		
3	15k RGB/Component 60 Hz		15.734	59.940	S on G/Y or Composite Sync	
4	15k RGB/Component 50 Hz		15.625	50.000	S on G/Y or Composite Sync	
6	640 × 350	VGA mode 1	31.469	70.086	H-pos, V-neg	800
7		VGA VESA 85 Hz	37.861	85.080	H-pos, V-neg	832
8	640 × 400	PC-9801 Normal	24.823	56.416	H-neg, V-neg	848
9		VGA mode 2	31.469	70.086	H-neg, V-pos	800
10		VGA VESA 85 Hz	37.861	85.080	H-neg, V-pos	832
11	640 × 480	VGA mode 3	31.469	59.940	H-neg, V-neg	800
12		Macintosh 13"	35.000	66.667	H-neg, V-neg	864
13		VGA VESA 72 Hz	37.861	72.809	H-neg, V-neg	832
14		VGA VESA 75 Hz	37.500	75.000	H-neg V-neg	840
15		VGA VESA 85 Hz	43.269	85.008	H-neg V-neg	832
16	800 × 600	SVGA VESA 56 Hz	35.156	56.250	H-pos, V-pos	1024
17		SVGA VESA 60 Hz	37.879	60.317	H-pos, V-pos	1056
18		SVGA VESA 72 Hz	48.077	72.188	H-pos, V-pos	1040
19		SVGA VESA 75 Hz	46.875	75.000	H-pos, V-pos	1056
20		SVGA VESA 85 Hz	53.674	85.061	H-pos, V-pos	1048
21	832 × 624	Macintosh 16"	49.724	74.550	H-neg, V-neg	1152
22	1024 × 768	XGA VESA 43 Hz	35.522	43.479	H-pos, V-pos	1264
23		XGA VESA 60 Hz	48.363	60.004	H-neg V-neg	1344
24		XGA VESA 70 Hz	56.476	70.069	H-neg V-neg	1328
25		XGA VESA 75 Hz	60.023	75.029	H-pos, V-pos	1312
26		XGA VESA 85 Hz	68.677	84.997	H-pos, V-pos	1376
27	1152 × 864	SXGA VESA 70 Hz	63.995	70.016	H-pos, V-pos	1472
28		SXGA VESA 75 Hz	67.500	75.000	H-pos, V-pos	1600
29		SXGA VESA 85 Hz	77.487	85.057	H-pos, V-pos	1568
30	1152 × 900	Sunmicro LO	61.795	65.960	H-neg, V-neg	1504
31		Sunmicro HI	71.713	76.047	H-neg, V-neg	1472
32	1280 × 960	SXGA VESA 60 Hz	60.000	60.000	H-pos, V-pos	1800
33		SXGA VESA 75 Hz	75.000	75.000	H-pos, V-pos	1728

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	SIZE
34	1280 × 1024	SXGA VESA 43 Hz	46.433	43.436	H-pos, V-pos	1696
35		SGI-5	53.316	50.062	S on G	1680
36		SXGA VESA 60 Hz	63.974	60.013	H-pos, V-pos	1696
37		SXGA VESA 75 Hz	79.976	75.025	H-pos, V-pos	1688
38		SXGA VESA 85 Hz	91.146	85.024	H-pos, V-pos	1296

Warning on power connection

Use a proper power cord for your local power supply.

	The United States, Canada		Continental Europe	UK, Ireland, Australia, Newzealand	Japan
Plug type	VM0233	290B	YP-12A	— 1)	VM1296
Female end	VM0089	386A	YC-13B	VM0310B	VM10505
Cord type	SJT	SJT	H05VV-F	N13237/CO-228	HVCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	13A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	DENTORI

1) **Note:** Use an appropriate rating plug which is applied to local regulations.

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SONY

4-074-279-01 (1)

早わかりカード / Quick Reference Card / Carte de référence rapide / Tarjeta de referencia rápida / Kurzreferenz / Scheda di riferimento rapido

VPL-CS1

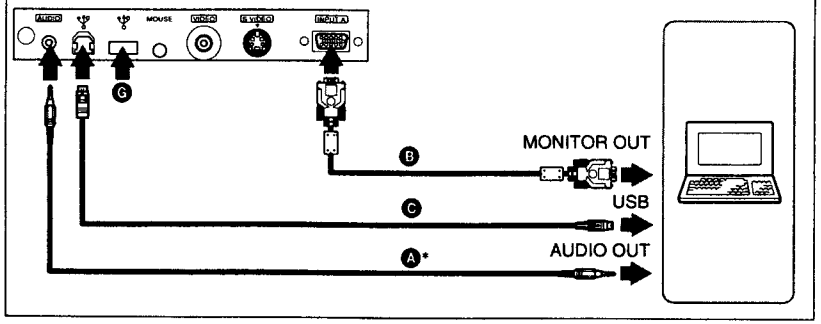
Sony Corporation © 1999 Printed in Japan

接続 / Connections / Connexions / Conexiones / Anschlüsse / Collegamenti

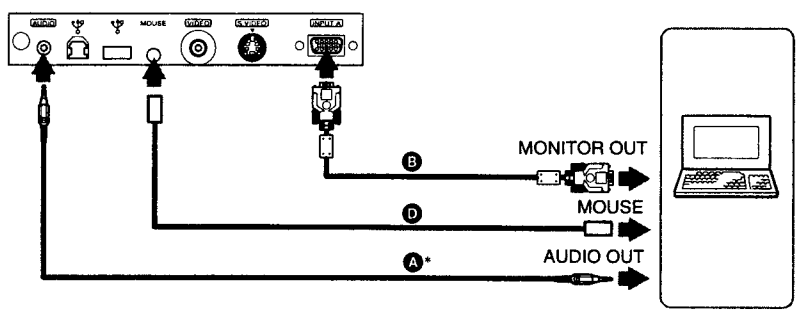
- Ⓐ ステレオオーディオ接続ケーブル / Stereo audio connecting cable / Câble de connexion audio stéréo / Cable de conexión de audio estéreo / Stereo-Audioverbindungskabel / Cavo di collegamento audio stereo
- Ⓑ HD D-sub 15ピンケーブル / HD D-sub 15-pin cable / Câble HD D-sub à 15 broches / Cable HD D-sub 15 pines / 15poliges D-Sub-Kabel hoher Dichte / Cavo HD D-sub a 15 piedini
- Ⓒ USB接続ケーブル / USB cable / Câble USB / Cable USB / USB-Kabel / Cavo USB
- Ⓓ マウスケーブル / Mouse cable / Câble de souris / Cable de ratón / Mauskabel / Cavo del mouse
- Ⓔ Sビデオ接続ケーブル / S-video cable / Câble S-vidéo / Cable de vídeo S / S-Videokabel / Cavo S-Video
- Ⓕ ビデオ接続ケーブル / Video cable / Câble vidéo / Cable de vídeo / Videokabel / Cavo video
- Ⓖ 他のUSB機器を接続 / Connect another USB equipment / Raccordez un autre appareil USB / Conexión de otro equipo USB / Anschließen eines anderen USB-Geräts / Collegare un altro apparecchio USB

コンピューターの接続 / Connecting a computer / Raccordement à un ordinateur / Conexión con ordenador / Anschließen an einen Computer / Collegamento a un computer

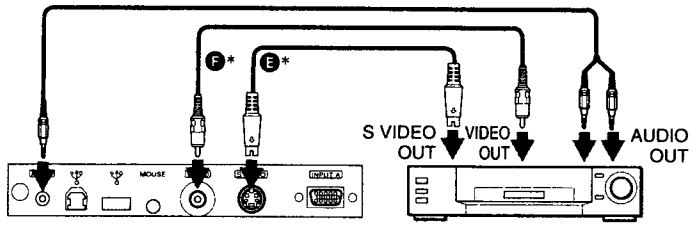
● **USBマウスやUSB対応周辺機器を使う場合 / When you use a USB mouse and USB equipment / Lorsque vous utilisez une souris USB et un appareil USB / Si utiliza un ratón USB y un equipo USB / Wenn Sie eine USB-Maus und ein USB-Gerät verwenden / Quando si utilizza un mouse USB e un apparecchio USB**



● **PS/2 マウスを使う場合 / When you use a PS/2 mouse / Lorsque vous utilisez une souris PS/2 / Si utiliza un ratón PS/2 / Wenn Sie eine PS/2-Maus verwenden / Quando si utilizza un mouse PS/2**



ビデオ機器の接続 / Connecting a VCR / Raccordement à un magnétoscope / Conexión con una vídeograbadora / Anschließen an einen Videorecorder / Collegamento a un videoregistratore

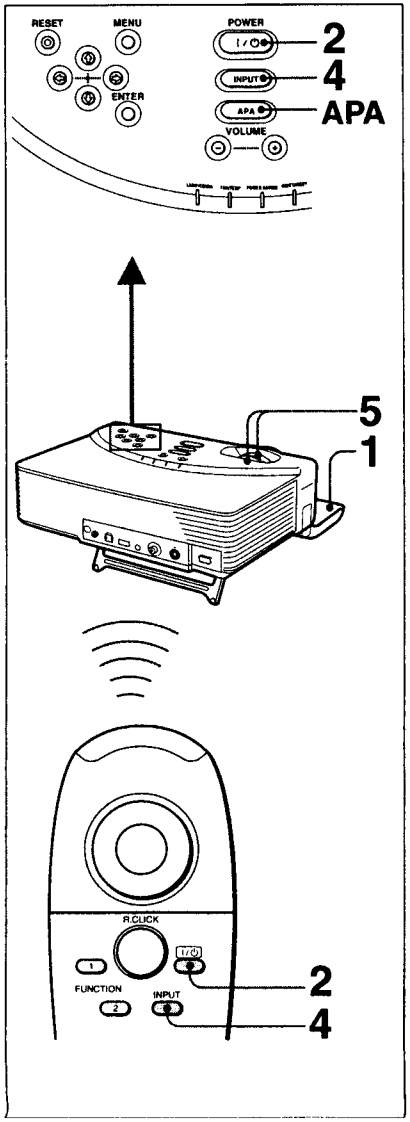


* 別売り / not supplied / non fourni / no suministrado / nicht mitgeliefert / non in dotazione

投射距離 / Projection Distances / Distances de projection / Distancias de proyección / Projektionsentfernungen / Distanze di proiezione

スクリーンサイズ (インチ) / Screen size(inchies) / Taille de l'écran (pouces) / Tamaño de la pantalla (pulgadas) / Projektionsschirmgröße (Zoll) / Dimensione schermo (pollici)	距離 (m) / Distance (m (feet)) / Distance (m (pieds)) / Distancia (m (pies)) / Abstand (m) / Distanza (m)
40	1.6–2.0 (5.2–6.6)
60	2.4–3.1 (7.8–10.0)
80	3.2–4.1 (10.5–13.5)
100	4.0–5.2 (13.2–16.9)
120	4.9–6.2 (15.9–20.3)
150	6.1–7.8 (20.0–25.5)

基本操作 / Basic Operation / Opération de base / Operación básica / Grundfunktion / Operazione di base



日本語

1 フロントカバーを開き、電源コードをコンセントに差し込み、各機器の接続を行う。
2 I/⏻ キーを押して、電源を入れる。
3 接続した機器の電源を入れる。
4 INPUTキーを押して、「入力A」または「ビデオ」を選ぶ。
5 ズームリングを回して画面の大きさを、フォーカスリングを回してフォーカスを調整する。

コンピューター画像の画質を自動調整するには

APA (Auto Pixel Alignment)キーを押してください。

English

1 Open the front cover, plug the AC power cord into the wall outlet, then connect all equipment.
2 Press the I / ⏻ key to turn on the projector.
3 Turn on equipment connected to the projector.
4 Press the INPUT key to select "INPUT-A" or "VIDEO".
5 Turn the zoom ring to adjust the size of the picture, and then turn the focus ring to adjust the focus.

To adjust the picture of computer automatically

Press the APA (Auto Pixel Alignment) key.

Français

1 Ouvrez le volet frontal, branchez le câble d'alimentation sur une prise murale et raccordez ensuite tous les appareils.
2 Appuyez sur la touche I / ⏻ pour mettre le projecteur sous tension.
3 Mettez sous tension l'appareil raccordé au projecteur.
4 Appuyez sur la touche INPUT pour sélectionner "ENT.A" ou "VIDEO".
5 Tournez la bague de mise au point pour régler la mise au point de l'image optimale, et ensuite la bague de zoom pour régler la taille de l'image.

Pour régler l'image d'un ordinateur automatiquement

Appuyez sur la touche APA (Auto Pixel Alignment).

Español

1 Abra la tapa frontal, enchufe el cable de alimentación de CA en la toma mural y, a continuación, conecte todo el equipo.
2 Pulse la tecla I / ⏻ para encender el proyector.
3 Encienda el equipo conectado al proyector.
4 Pulse la tecla INPUT para ajustar "ENTRAD A" o "VIDEO".
5 Gire el anillo de enfoque para ajustar el enfoque y, a continuación, gire el anillo de zoom para ajustar el tamaño de la imagen.

Para ajustar la imagen del ordenador automáticamente

Pulse la tecla APA (Auto Pixel Alignment).

Deutsch

1 Öffnen Sie die Abdeckung vorn, stecken Sie das Netzkabel in die Steckdose, und schließen Sie alle Geräte an.
2 Schalten Sie den Projektor mit der Taste I / ⏻ ein.
3 Schalten Sie die an den Projektor angeschlossenen Geräte ein.
4 Wählen Sie mit der Taste INPUT die Eingangsquelle „EING.A" oder „VIDEO" aus.
5 Stellen Sie durch Drehen des Fokussierrings den Fokus und durch Drehen des Zoom-Rings die Größe des Bildes ein.

Zum automatischen Einstellen des Bildes des Computers

Drucken Sie die Taste APA (Auto Pixel Alignment).

Italiano

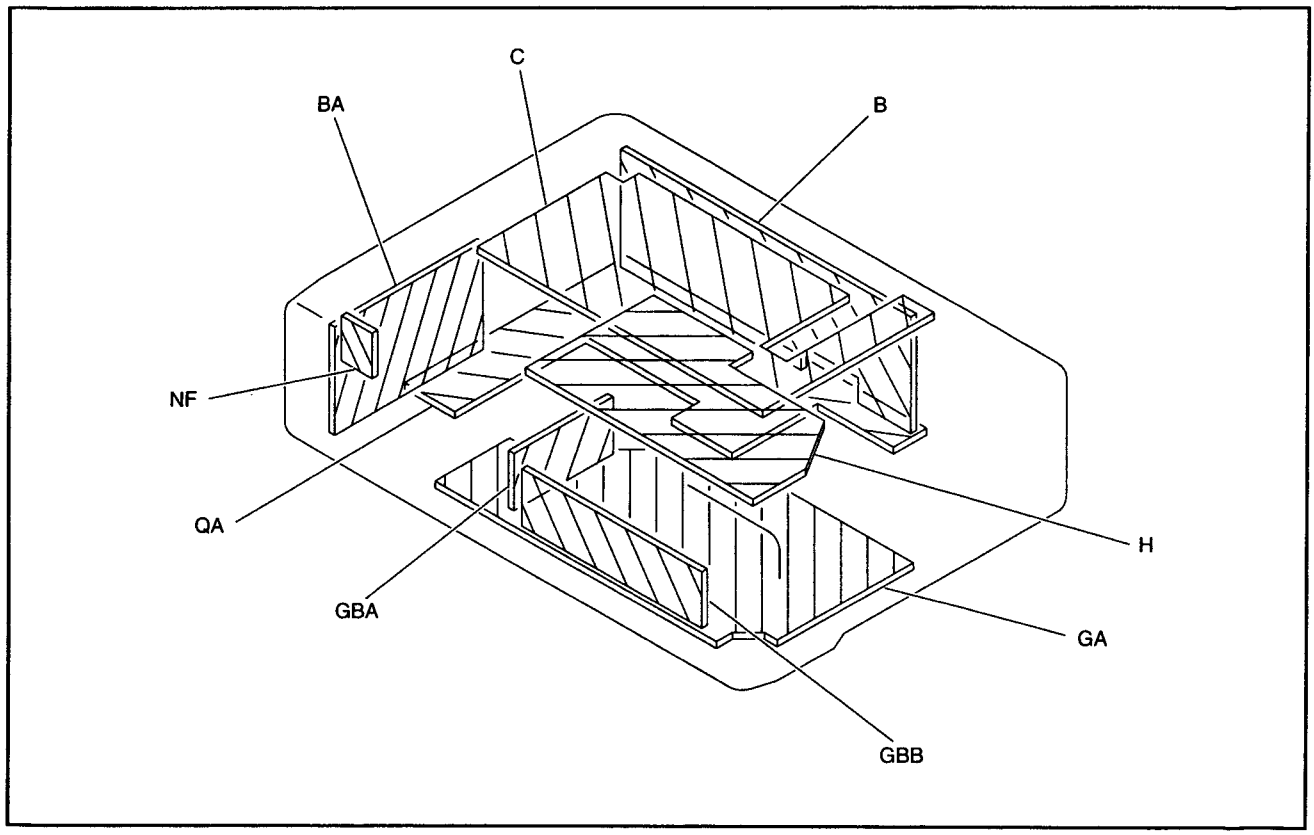
1 Aprire il coperchio anteriore, inserire l'alimentatore CA nella presa a muro, quindi collegare tutti gli apparecchi.
2 Premere il tasto I / ⏻ per accendere il proiettore.
3 Accendere l'apparecchio collegato al proiettore.
4 Premere il tasto INPUT per selezionare "INGRE A" o "VIDEO".
5 Per regolare la messa a fuoco, ruotare il regolatore apposito, quindi ruotare il regolatore dello zoom per regolare le dimensioni dell'immagine.

Per regolare l'immagine da un computer automaticamente

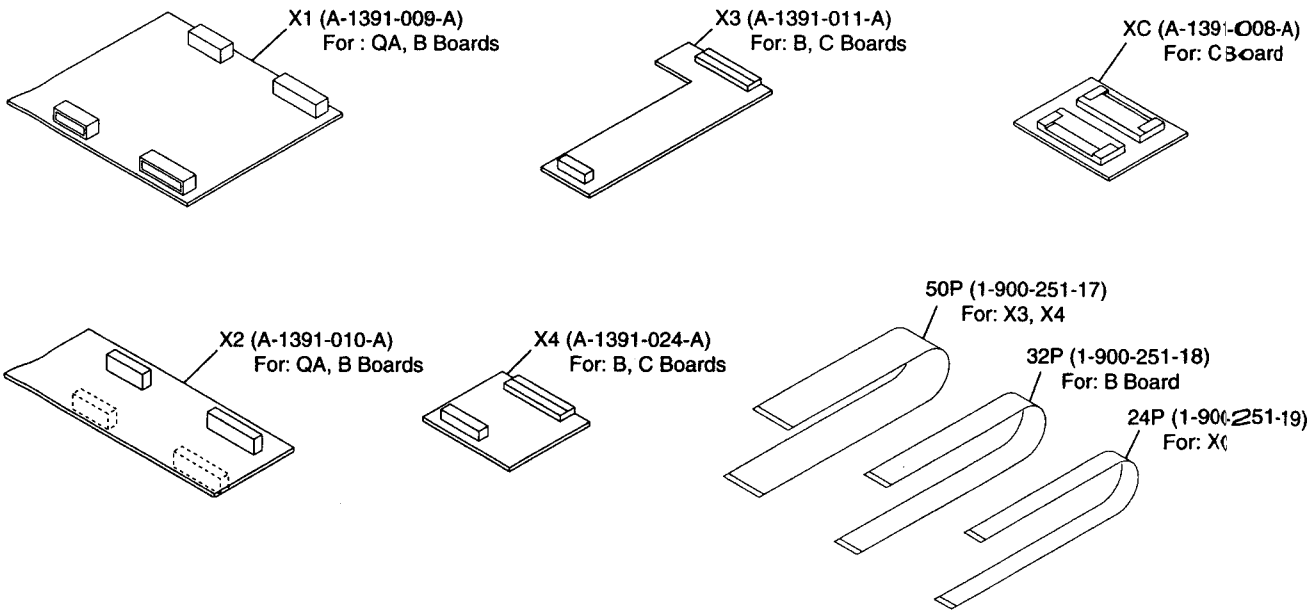
Premere il tasto APA (Auto Pixel Alignment).

Section 2
Service Informations

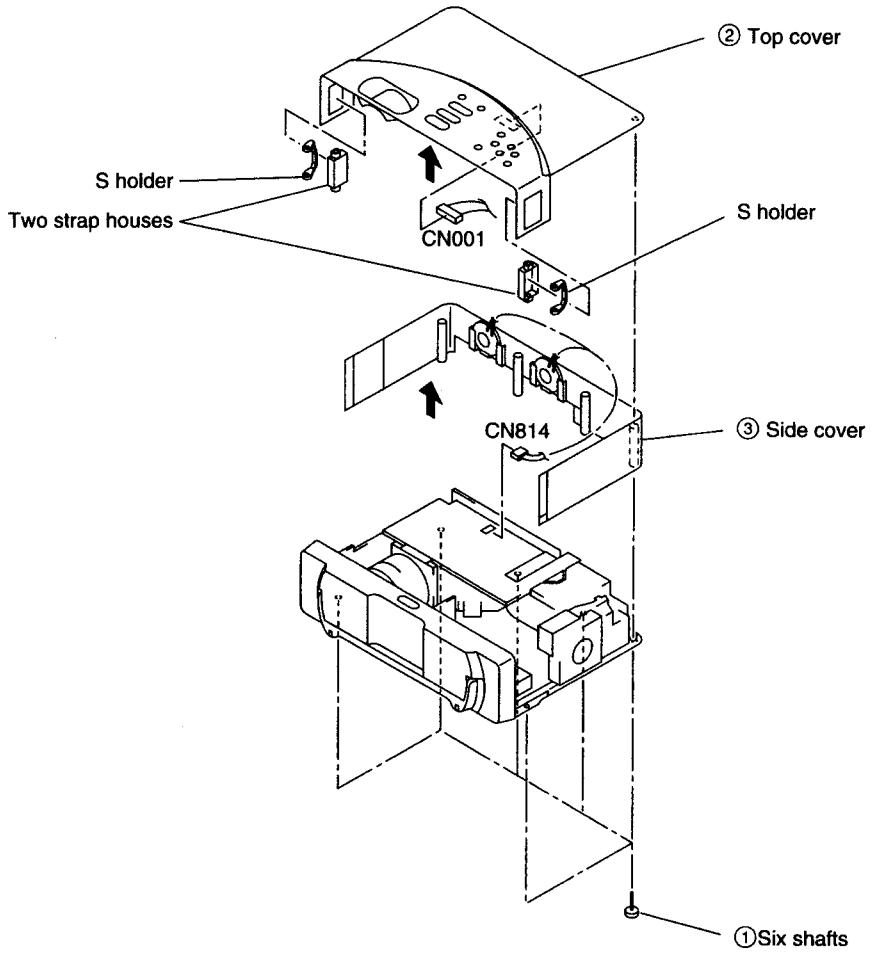
2-1. Circuit Boards Location



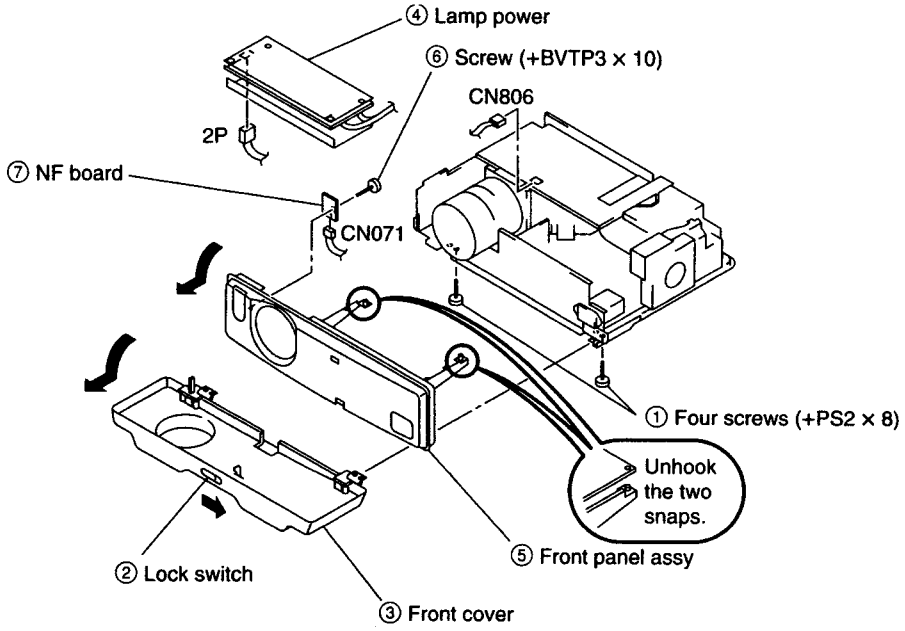
2-2. Extension Boards and Flexible Cables



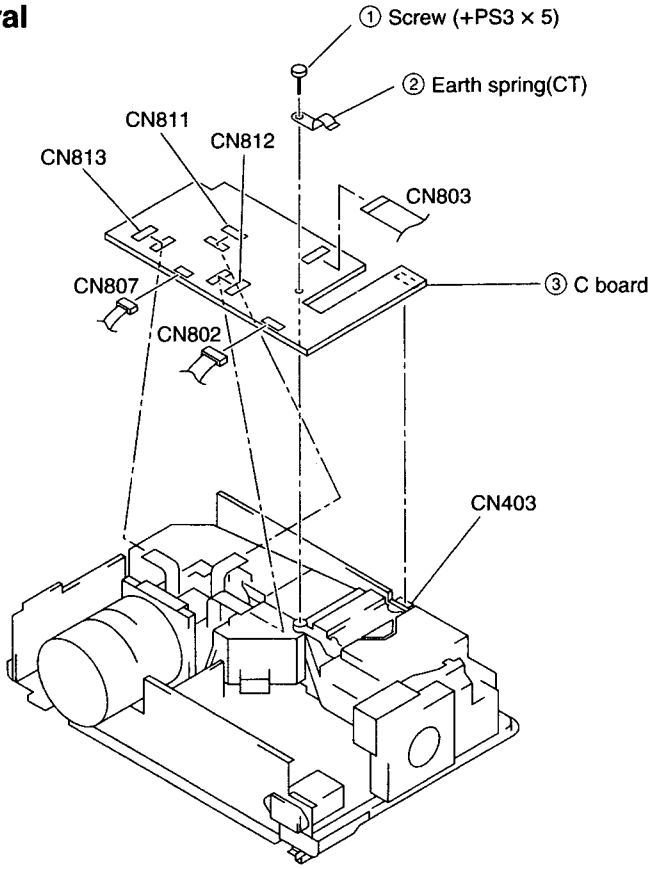
2-3. Cover Removal



2-4. Front Panel Assy and NF Board Removal

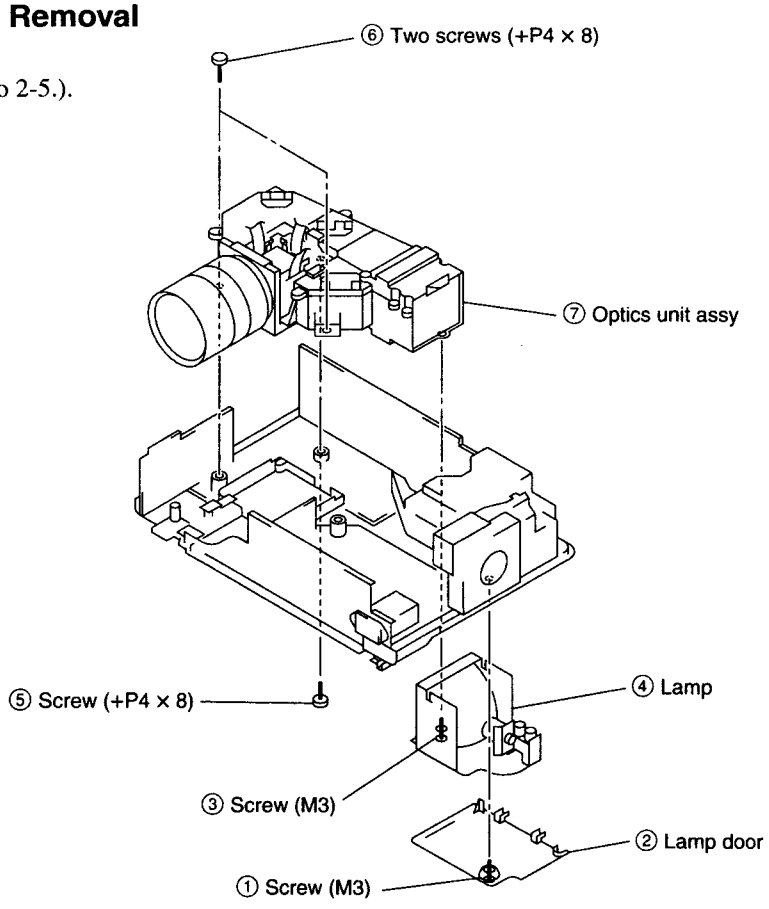


2-5. C Board Removal



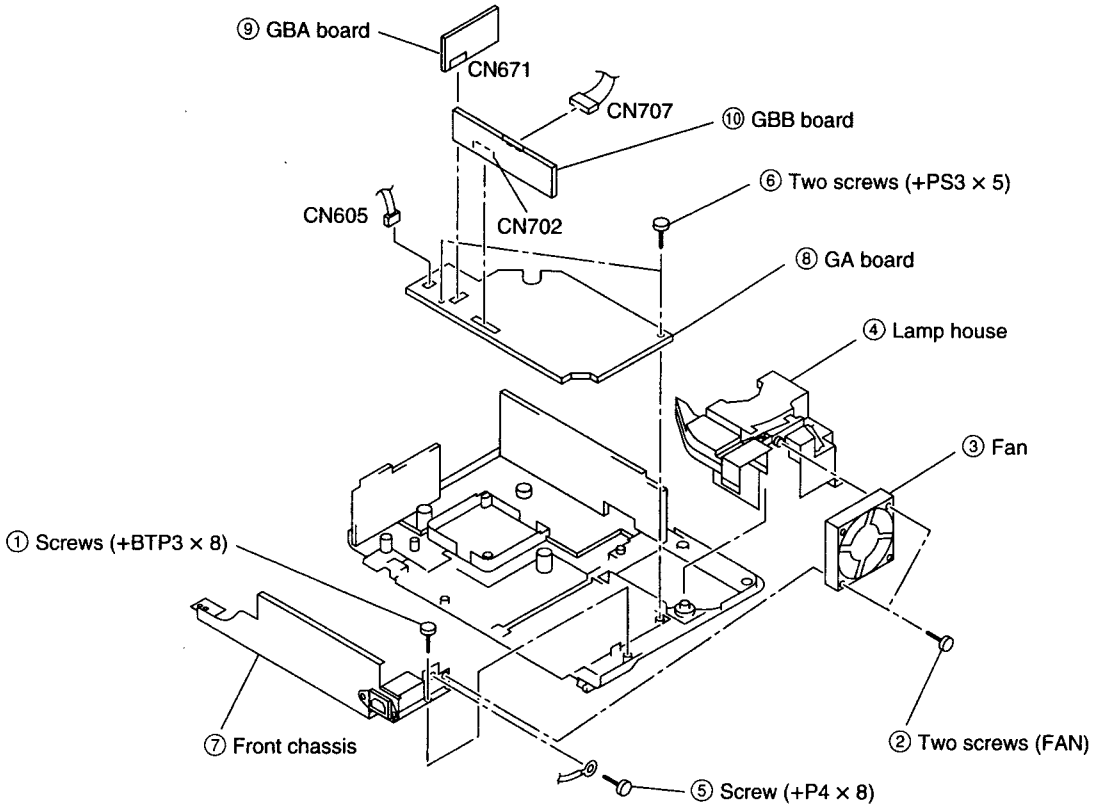
2-6. Optics Unit Assy Removal

- Remove the C Board (Refer to 2-5.).



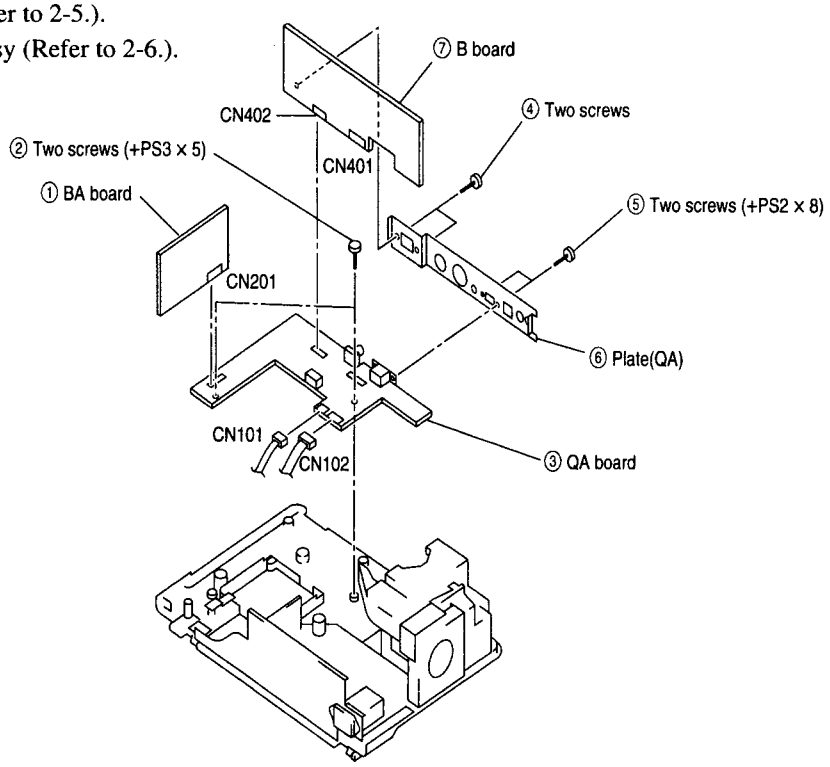
2-7. GA, GBA and GBB Boards Removal

• Remove the C Board (Refer to 2-5.).
• Remove the optics unit assy (Refer to 2-6.).

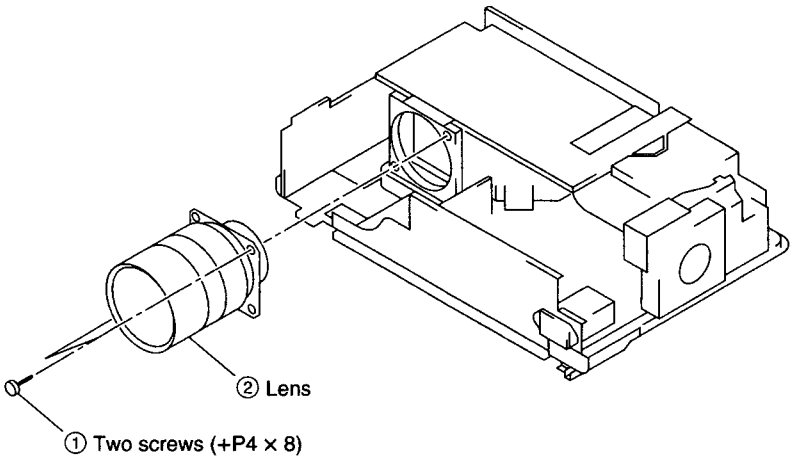


2-8. B, BA and QA Boards Removal

• Remove the C Board (Refer to 2-5.).
• Remove the optics unit assy (Refer to 2-6.).

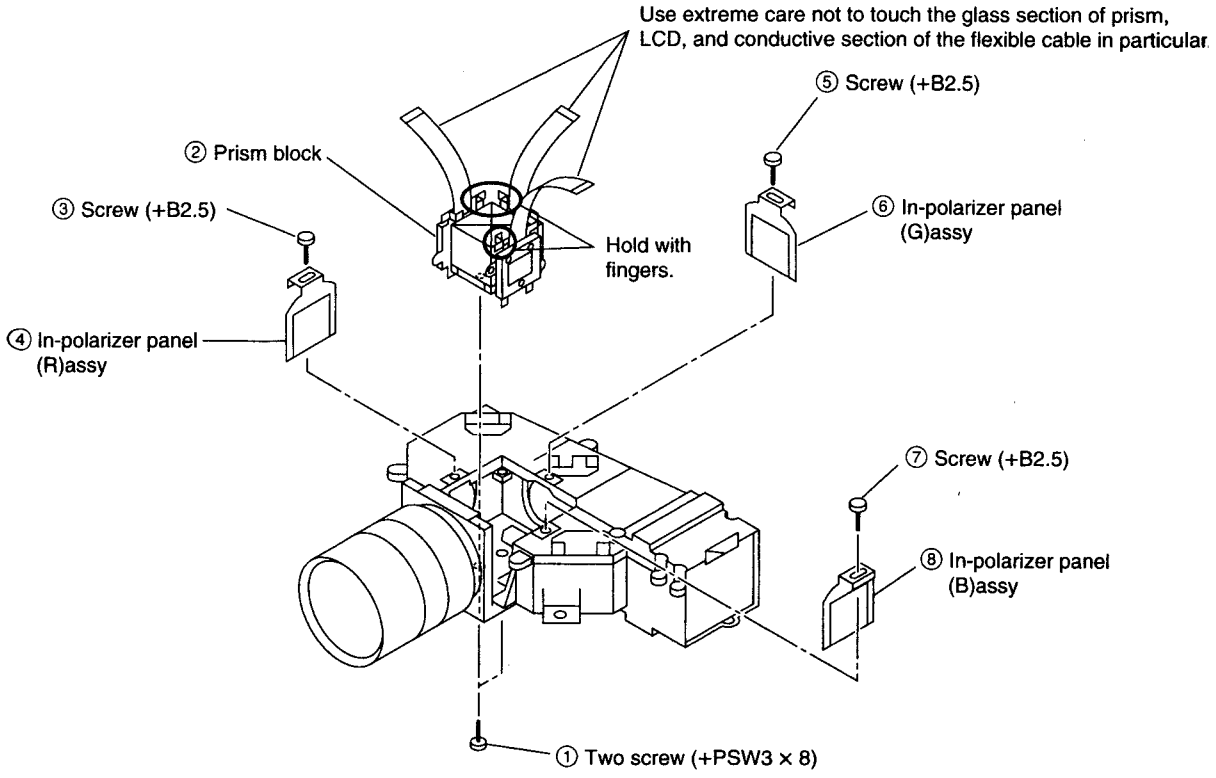


2-9. Lens Removal



2-10. Prism Block and In-Polarizer Panel Assy Removal

- Remove the C Board (Refer to 2-5.).
- Remove the Optics Unit Assy (Refer to 2-6.).


Use extreme care not to touch the glass section of prism, LCD, and conductive section of the flexible cable in particular.
⑤ Screw (+B2.5)
② Prism block
③ Screw (+B2.5)
⑥ In-polarizer panel (G)assy
Hold with fingers.
④ In-polarizer panel (R)assy
⑦ Screw (+B2.5)
⑧ In-polarizer panel (B)assy
① Two screw (+PSW3 × 8)

Section 3
Electrical Adjustments

3-1. Preparations

3-1-1. Equipment Required

- Oscilloscope
  Tektronix 2465 or equivalent
  (bandwidth: 350 MHz or more)
- NTSC, PAL, SECAM component signal generator
  Tektronix TG2000 + AVG1 (optional module) + AWVG1 (optional module) or equivalent
- VG (Programmable video signal generator)
  VG814 or equivalent
- Digital voltmeter
  Advantest TR6845 or equivalent
- Luminance meter

Note: Perform the following adjustments at least 5 minutes after turning on the power.

3-1-2. Optical Unit Adjustment

Drive the cooling fan and turn on the lamp.

3-1-2-1. Mirror Adjustment

Set the screen size to 80-inch at the wide-end.

1. Set the unit in green-only.
2. Adjust the blanking sections at the top, bottom, left, and right for minimum by moving the adjusting plate of the G-channel mirror (OPT).
3. Tighten the adjusting plate fixing screws.
4. Set the unit in cyan.
5. Adjust the blanking sections at the top, bottom, left, and right for minimum by moving the adjusting plate of the B-channel mirror (OPT), and then maximize the intensity of the blue.
6. Tighten the adjusting plate fixing screws.
7. Set the unit in all white.
8. Adjust the blanking sections at the top, bottom, left, and right for minimum by moving the adjusting plate of the R-channel's first mirror (OPT), and then maximize the intensity of the red.
9. Tighten the adjusting plate fixing screws.
10. Secure the six adjusting plate fixing screws using a torque screwdriver.
    Tightening torque: 8 kgf/cm
11. Make sure that the deviation of the lighting range is within the specific range.

3-1-2-2. Polarizing Plate Adjustment

1. Attach the extension cable and the extension flexible cable to the C board, and input the RGB all black (SVGA 0 IRE Flat Field) signal.
2. Move the red, green, and blue polarizing plates gradually to adjust the black level.
3. Secure the fixing screws using the screwdriver.

Note: When tightening the six fixing screws, be sure to push the polarizing plate toward the radiating side.

3-1-3. Factory Mode Setting

1. Make sure that the STATUS in the menu is ON.
2. Exit the menu.
3. Press the keys in the following ORDER:
   "ENTER" → "ENTER" → "LEFT" → "ENTER"
4. The message "Do you wish to enter into the FACTORY MODE?" will be displayed.
5. Select YES.

3-2. V-COM Adjustment

1. Input the green-only 1H inverted signal to INPUT-A.
2. Set the CONTRAST to 50 and BRIGHT to 50.
3. Set the screen to G VCOM adjustment of "Device Adjust."
   Adjust the G VCOM so that the flicker on the screen is minimum.
4. Input the red-only and blue-only 1H inverted signal respectively and adjust R VCOM and B VCOM respectively so that the flicker becomes minimum.
5. Save the value adjusted.

3-3. Adjustment Item Initialize Data

Menu Title	Item Name	Memory Name							
		SET MEMORY	CH MEMORY		STATUS MEMORY	W/B MEMOR			
			VIDEO	INPUT-A		VIDEO HIGH	VIDEO LOW	RGB HIGH	RGB LOW
PICTURE CTRL	CONTRAST		80	80					
	BRIGHT		50	50					
	COLOR		50	50					
	HUE		50	50					
	SHARP		50	50					
	D.PICTURE		OFF	OFF					
	COLOR TEMP		LOW	HIGH					
	COLOR SYS		AUTO	-					
	GAMMA MODE		-	GRAPHICS					
INPUT SETTING	ASPECT				4 : 3 (*)				
	SIZE H				*				
	SHIFT				*				
	SCAN CONV				ON (*)				
	DOT PHASE				15 (*)				
SET SETTING	STATUS	ON							
	INPUT-A	RGB							
	KEYSTONE MEMORY	OFF							
	DIGITAL KEYSTONE	OFF							
	LANGUAGE	ENGLISH							
	POWER SAVING	OFF							
	SIRCS RECEIVER	FRONT&REAR							
	LAMP TIMER	INDICATION ONLY							
INFORMATION	fH	INDICATION ONLY							
	fV	INDICATION ONLY							
	ROM Ver	INDICATION ONLY							
	OPERATION TIMER	INDICATION ONLY							
	PREVIOUS LAMP TIMER	INDICATION ONLY							
W/B ADJUST	GAIN R					64	64	64	64
	GAIN G					64	60	64	60
	GAIN B					64	60	64	60
	BIAS R					0	0	0	0
	BIAS G					0	0	0	0
	BIAS B					0	0	0	0

*: DOT PHASE, SIZE H, SHIFT H/V, SCAN CONV, ASPECT, and BLANKING in the "INPUT SETTING" menu have an initial value respectively in accordance with the input signal (PRESET MEMORY No.).

Note : There are nonadjustable items in accordance with the input signal.

Menu Title	Item Name	Memory Name						
		SET MEMORY	CHROMA MEMORY		YUV	Reso Memory	Status Memory	Remarks
			NT358,NT443 B&W60	PAL,PALM/N SECAM,B&W 50				
RGB MTRX/	CONTRAST		49	47	47			
	BRIGHT		35	35	35			Fixed Value
	SUB HUE		7	8	7			
	SUB BRT		7	7	7			Fixed Value
	R-Y/R		12	11	11			
	R-Y/B		14	12	13			
	G-Y/R		9	7	5			
	G-Y/B		6	6	5			
	VIDEO CON		9	12	7			
	VIDEO COL		6	9	7			
	YUV CON		7	7	9			
	YUV COL		7	7	7			
	SUB SHP		2	2	1			Fixed Value
	SHP FO		3	3	1			Fixed Value
	PRE OVER		0	0	2			Fixed Value
	NR LVL		2	2	0			Fixed Value
	CEC LVL		2	2	2			Fixed Value
	DMIC PIC	2						Fixed Value
DCOM/	VENH	0						Fixed Value
CHROMA/	PAL DVD	Non Adjustable						Fixed Value
	Y-OUT LVL	15						
	C-OUT LVL	35						
	Y-DL	8						Fixed Value
	S B-Y ADJ	0						Fixed Value
	S R-Y ADJ	3						Fixed Value
	S-INHBT	0						Fixed Value
	S-ID	0						Fixed Value
	S GP	0						Fixed Value
	S V-ID	0						Fixed Value
	BELL f0	0						Fixed Value
	BELL/HPF	0						Fixed Value
	SHP GAIN		12	12	12			Fixed Value
	SHIP EQ		0	0	0			Fixed Value
	SHIP F0		2	2	2			Fixed Value

* : DOT PHASE, SIZE H, SHIFT H/V, SCAN CONV, ASPECT, and BLANKING in the "INPUT SETTING" menu have an initial value respectively in accordance with the input signal (PRESET MEMORY No.).

**: It differs in accordance with the resolution of the input signal.

Note : There are nonadjustable items in accordance with the input signal.

Menu Title	Item Name	Memory Name						
		SET MEMORY	CHROMA MEMORY		YUV	Reso Memory	Status Memory	Remarks
			NT358,NT443 B&W60	PAL,PALM/N SECAM, B&W 50				
P. DRV/	VCOM G	143						
	VCOM R	182						
	VCOM B	187						
	SIG CEN	120						Fixed Value
	SID LVL	91						
	PRG LVL	125						
	INSTA DOWN	0						
	INSTA DIR-CNT	0						
SH/	SH 1	4						
	SH 2	67						
V AMP	CONT	105						Fixed Value
	SUB CONT R	128						Fixed Value
	SUB CONT G	128						Fixed Value
	SUG CONT B	128						Fixed Value
	BRT	161						Fixed Value
SC/	HALFTONE BRT	1						
	GAMMA ON	1						
	FREEZE	0 (Non memory)						
	VINIT EVEN					**		Fixed Value
	VINIT ODD					**		Fixed Value
	EDMOD					2 (**)		Fixed Value
	SHOGA	0						Fixed Value
	UNSYNCHRO IFV						0 (*)	
APA/	APA SH LVL	Non Adjustable						Fixed Value
	SHIFT SH LVL	Non Adjustable						Fixed Value
PLL/	VCO						0 (*)	Fixed Value
	CP						*	Fixed Value
OTHER/	TENP LAMP	Non Adjustable						Fixed Value
	TENP PANEL	Non Adjustable						Fixed Value
	ZOOM	0(Non memory)						

*: DOT PHASE, SIZE H, SHIFT H/V, SCAN CONV, ASPECT, and BLANKING in the "INPUT SETTING" menu have an initial value respectively in accordance with the input signal (PRESET MEMORY No.).

**: It differs in accordance with the resolution of the input signal.

Note: There are nonadjustable items in accordance with the input signal.

3-4. Service Kowhow

3-4-1. After Replacing the Prism Block

1. Perform Section "3-1-2-2. Polarizing Plate Adjustment."
2. Perform Section "3-2. V-COM Adjustment."
3. Perform Section "3-5. White Balance Adjustment on Servicing."

3-4-2. After Replacing the Board

- Refer to the cross table below.
- There are no need to perform the adjustment when the board other than the BA board or C board had been replaced.

3-4-2-1. When Replacing the BA Board

When the data before replacement can be read properly

1. Make a not of the data before replacement. After replacement, write the data into the new board with service mode.
2. If the white balance is extremely deteriorated, perform the white balance adjustment (Refer to Section 3-5.).

When the data before replacement cannot be read

1. Perform Section "3-2. V-COM Adjustment."
2. Perform Section "3-5. White Balance Adjustment on Servicing."

3-4-2-2. When Replacing the C Board

1. Perform Section "3-2. V-COM Adjustment."
2. Perform Section "3-5. White Balance Adjustment on Servicing."

3-4-2-3. When Replacing the Other Board

There are no need to perform the adjustment.

Cross Table of Board Replacement

Device Name	Item Name	Board Name	
		BA	C
P.DRV	VCOM (R)	*	O
	VCOM (G)	*	O
	VCOM (B)	*	O
	CONT	*	95, 100 IRE
	SUB CONT R	*	95,100 IRE
	SUB CONT G	*	128 Fixed
	SUB CONT B	*	95,100 IRE
	BRT	*	2.8 V
W/B ADJUST			
INPUT A-HIGH	GAIN R	*	No
	GAIN G	*	No
	GAIN B	*	No
	BIAS R	*	No
	BIAS G	*	No
	BIAS B	*	No
INPUT A-LOW	GAIN R	*	O
	GAIN G	*	O
	GAIN B	*	O
	BIAS R	*	O
	BIAS G	*	O
	BIAS B	*	O
VIDEO-HIGH	GAIN R	*	No
	GAIN G	*	No
	GAIN B	*	No
	BIAS R	*	No
	BIAS G	*	No
	BIAS B	*	No
VIDEO-LOW	GAIN R	*	O
	GAIN G	*	O
	GAIN B	*	O
	BIAS R	*	O
	BIAS G	*	O
	BIAS B	*	O

*: When down the data befor replacement, and then write in the data after the board replacement.

O: Need adjustment

Value: See description.

3-5. White Balance Adjustment on Servicing

3-5-1. Signal Level Adjustment

1. Input the 10 STEP signal to INPUT-A.
2. Warm up the unit at least 10 minutes. Enter the V-AMP/BRT adjustment mode from the Service mode as follows :
   Service Mode → MENU → DEV. ADJ → P. DRV → VAMP/BRT.
3. Measure TP808, TP811, and TP812 on the C board by osciloscope. Adujust V AMP/BRT so that the minimum value in all black level is 2.8 V.
4. Input the 95 IRE and 100 IRE STEP signals.
5. Set the unit in G-only mode.
6. Enter the P.DRV on the MENU screen by the DEV. ADJ.
7. Discriminate the 95 IRE and 100 IRE by the V-AMP/CONT controls of the P.DRV.
8. Set the unit in R-only mode.
9. Discriminate the 95 IRE and 100 IRE by the V-AMP/SUB CONT R controls of the P.DRV.
10. Set the unit in B-only mode.
11. Discriminate the 95 IRE and 100 IRE by the V-AMP/SUB CONT B controls of the P.DRV.

3-5-2. White Balance Adjustment

3-5-2-1. HIGH Mode of INPUT-A

Input the 10 STEP signal to INPUT-A, and observe the chromaticity of each luminance.
When varying the chromaticity of each luminance, perform the following adjustments.

1. Input the 100 IRE FLAT FIELD signal to INPUT-A.
2. Measure the chromaticity (x, y).
3. Input the 50 IRE FLAT FIELD signal to INPUT-A.
4. Adjust the chromaticity (x, y) to the values measured in step 2 by the V-AMP/SUB CONT R and B of the P. DRV.

3-5-2-2. LOW Mode of INPUT-A

1. Input the 80 IRE FLAT FIELD signal to INPUT-A.
2. Set the GAIN G to 60 with the LOW mode of the W/B.
3. Measure the chromaticity (x, y).
4. Input the 25 IRE FLAT FIELD signal to INPUT-A.
5. Adjust the chromaticity (x, y) to the values measured in step 3 by the BIAS G and B of the LOW mode of the W/B.
6. Repeat above steps 1 to 5 until the chromaticity become the following values.
   x ± 0.002, y ± 0.003 (The x and y are the values measured in step 3.)

3-5-2-3. HIGH Mode of VIDEO

Switch the input to COMPONENT from INPUT-A by the SET SETTING of the Menu screen.
Input the 15k COMPONENT 10 STEP signal to INPUT-A, and observe the chromaticity of each luminance.
When varying the chromaticity of each luminance, perform the following adjustments.

1. Input the 100 IRE FLAT FIELD signal to INPUT-A.
2. Measure the chromaticity (x, y).
3. Input the 50 IRE FLAT FIELD signal to INPUT-A.
4. Adjust the chromaticity (x, y) to the values measured in step 2 by the V-AMP/SUB CONT R and B of the P. DRV.

3-5-2-4. LOW Mode of VIDEO

1. Input the 80 IRE 15k COMPONENT FLAT FIELD signal to INPUT-A.
2. Set the GAIN G to 60 with the LOW mode of the W/B.
3. Measure the chromaticity (x, y).
4. Input the 25 IRE FLAT FIELD signal to INPUT-A.
5. Adjust the chromaticity (x, y) to the values measured in step 3 by the BIAS G and B of the LOW mode of the W/B.
6. Repeat above steps 1 to 5 until the chromaticity become the following values.
   x ± 0.002, y ± 0.003 (The x and y are the values measured in step 3.)

3-6. Memory

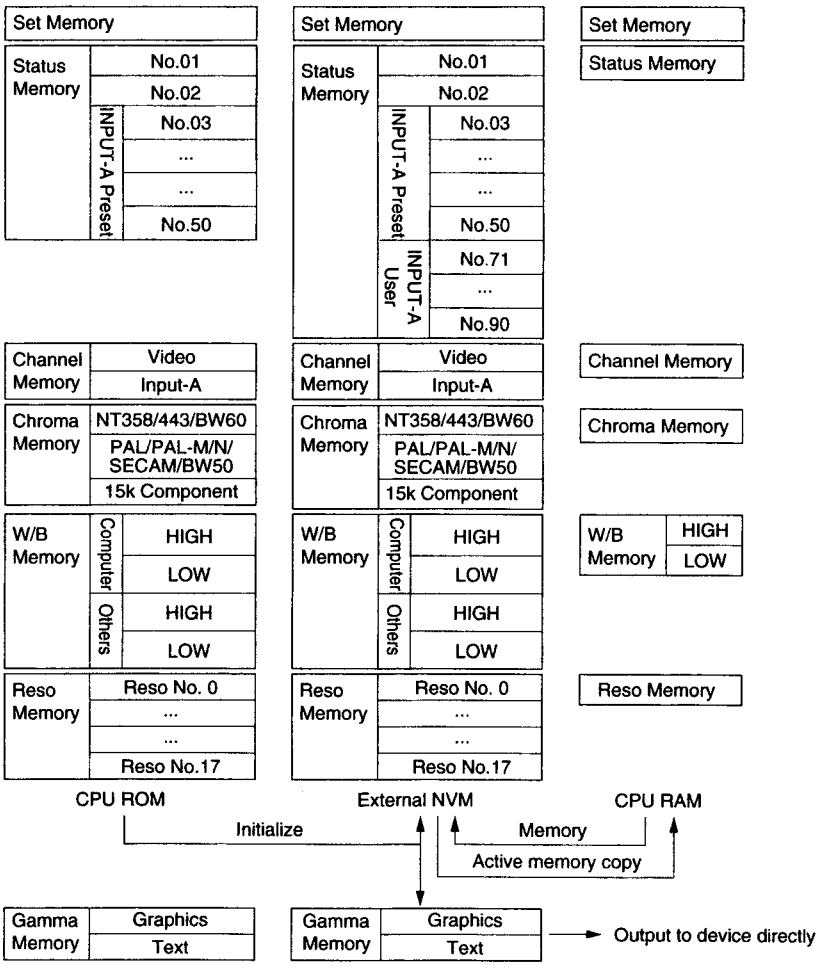
Memory structure of VPL-CS1 series is based on the 600 series, and it is composed of the following seven memory blocks.

1. Set memory
2. Status memory
3. Channel memory
4. Chroma memory
5. W/B memory
6. Reso memory
7. Gamma memory

When the power plug is connected to the power line (Standby status), all data inside the internal ROM are written into the NVM (Nonvolatile Memory). When the power is turned to on, required data for the current picture, such as status memory data, etc., are selected, and they are written into the internal RAM. At this time, the gamma memory data is not writing into the internal RAM but all graphics/text data will be transferred to the register inside the device instead.

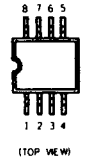
When adjustment is carried out, adjustment data are written into the NVM automatically (items on the user mode) or by the trigger of memory operation (items on the service mode and special service mode).

Adjustable items (W/B and Device Adjust) of the service mode and special service are memorized into the NVM by the memory operation. At the same time, the factory preset (adjusted) data are all eliminated from the memory.

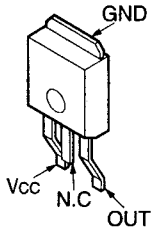


Section 4
Semiconductors

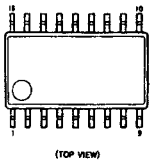
BA033FP-E2
LT1376IS#TR
MC100ELT20DR2
NJM2073M(TE2)
SN74CBTD3306PWR
TC7W08FU
TL431BCDR2



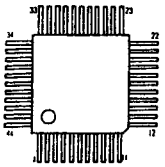
BA12FP-E2



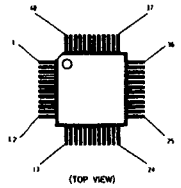
CXA1846BN



CXA2112R-T6



CXA1839Q-T6
CXD2064Q-T6



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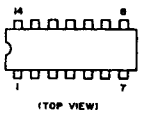

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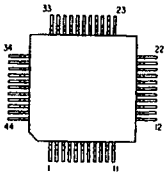

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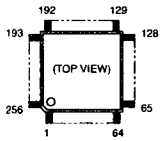
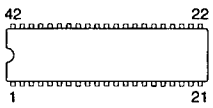


M52749FP-TP



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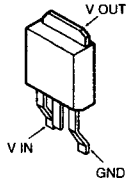
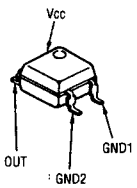
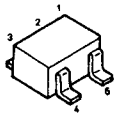


RS-140-T

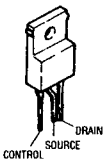


TA78M09F(TE16L)

TC7S04FU
TC7SH08FU-TE85R

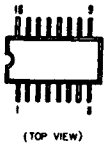


TOP222Y-BB
TOP223Y-BB

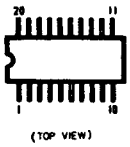


74VHC14MTCX
TC74LCX04FT(EL)
TC74LCX74FT
TC74VHCT04AFT
TC74VHCT04MTCX
TC74VHC125MTCX

74VHC221AMTCX
CXA1875AM-T4
MAX4066CEE-TE2



74VHC240MTCX
MB88346BPFV-EF



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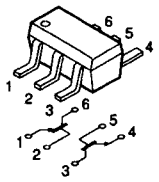
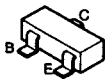
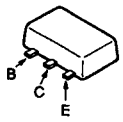


2SA1162-YG-TE85L
2SA1213Y-TE12L
2SA1462
2SC2712-YG-TE85L
DTA144EKA-T146
DTC144EKA-T146



2SC2873Y-TE12L



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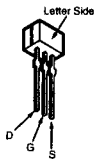
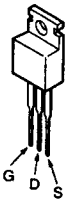
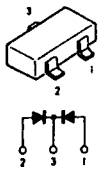


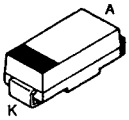
2SK3013F-02



DAN202K-T-146



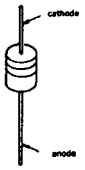
D1FL20U-TA
D1FS4A-TA



D10SC9M

FCQ20A06

RD8.2ES-T1B2



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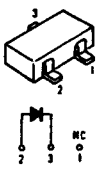
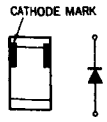
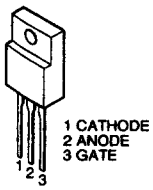
RD8.2M-T1B1



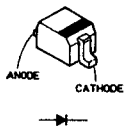
SEC1801C
SEC2422C
SEC2422C



TF861S



1SS355TE-17
D2FS6-TA
DTZ-TT11-5.1
RB501V-40TE-17
RD5.6SB-T1
RD9.1SB2-T1
UDZ-TE-17-3.9B



Section 5
Exploded Views

NOTE :

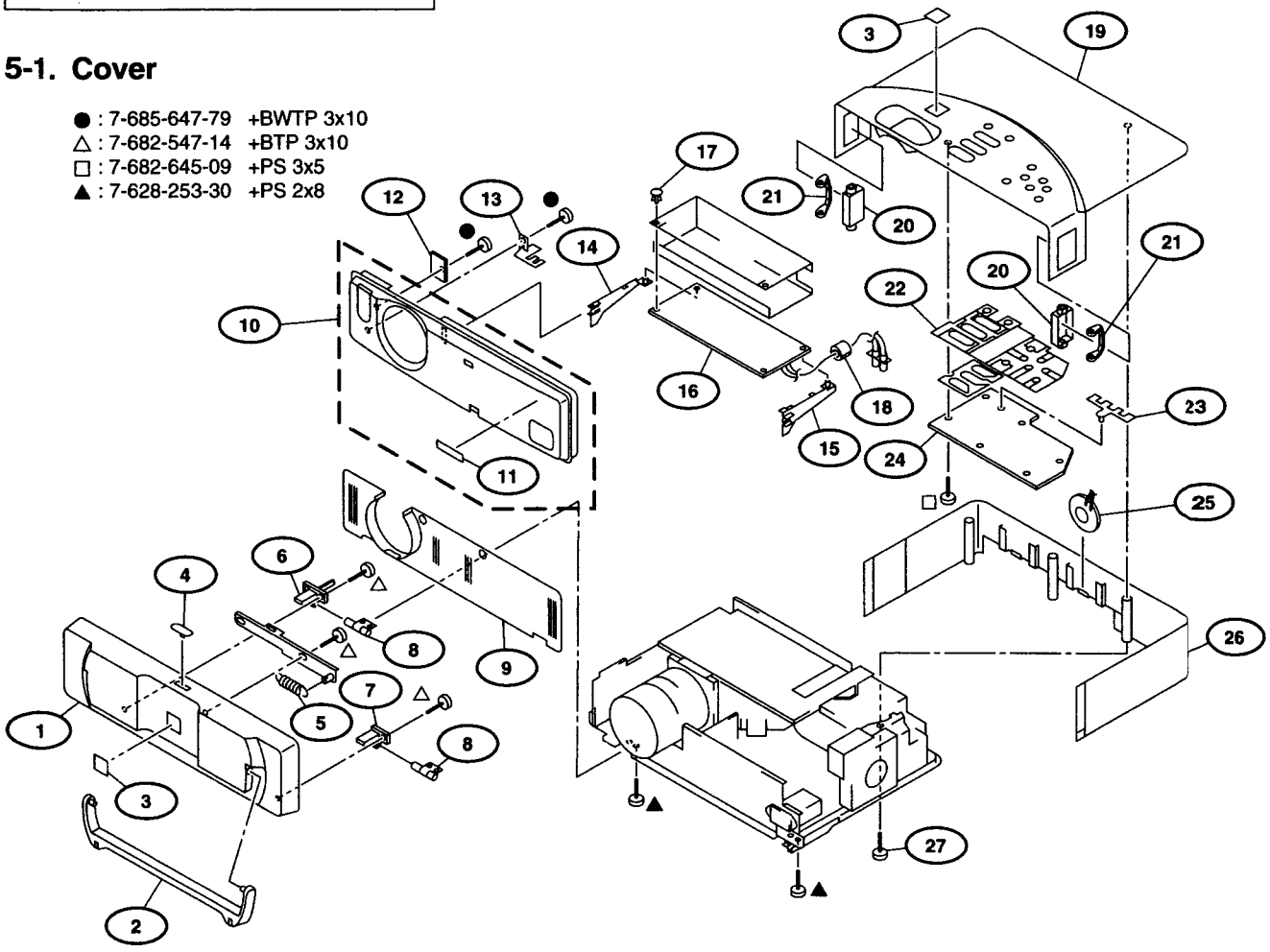
The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

5-1. Cover

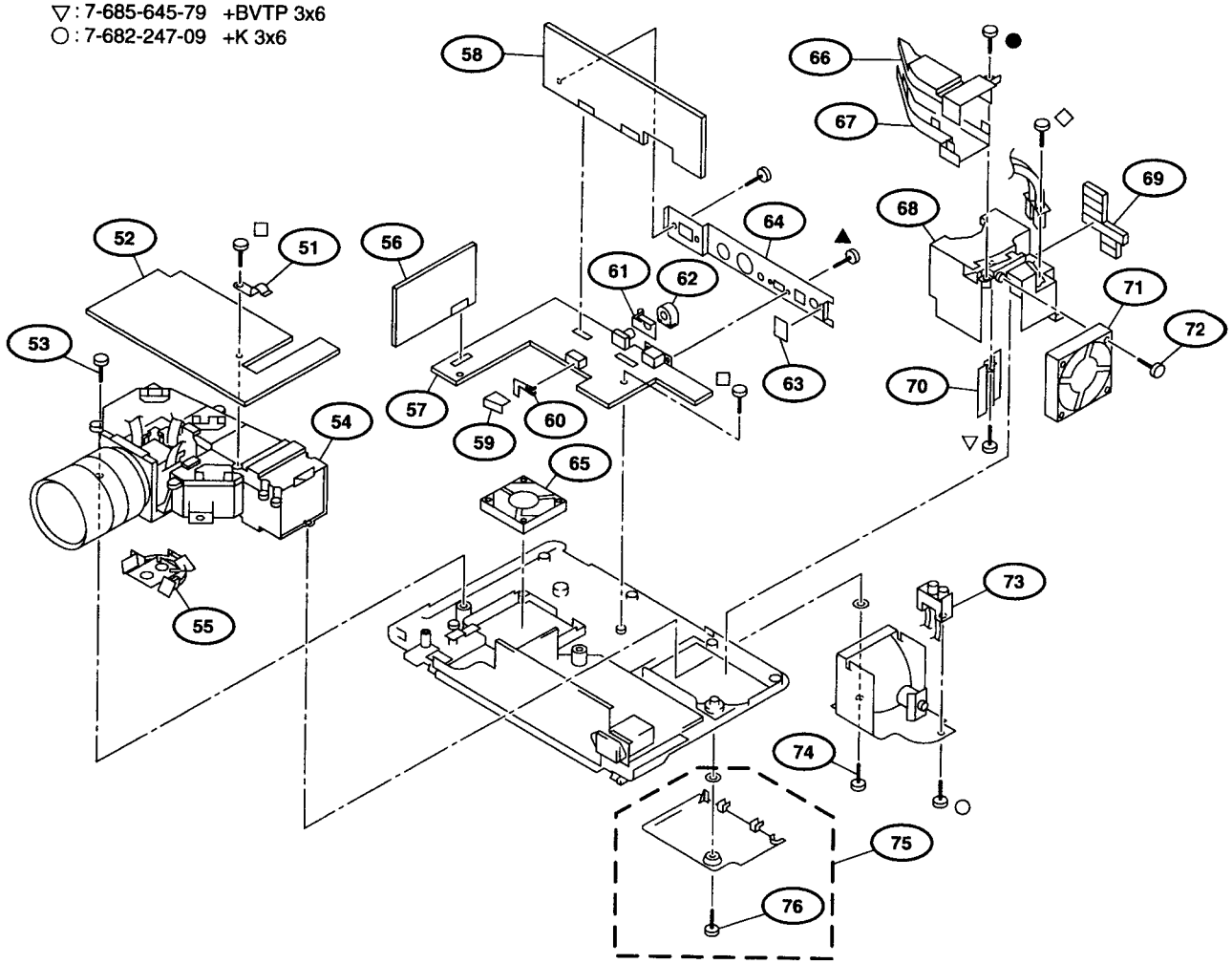
● : 7-685-647-79 +BWTP 3x10
△ : 7-682-547-14 +BTP 3x10
□ : 7-682-645-09 +PS 3x5
▲ : 7-628-253-30 +PS 2x8



REF NO.		PART NO.	DESCRIPTION	REMARK
1	*	4-074-275-01	COVER, FRONT	
2	*	X-4037-487-1	HANDLE ASSY	
3	*	4-074-231-01	EMBLEM (CS1)	
4		4-074-251-01	SWITCH, LOCK	
5	*	4-074-434-01	SPRING, EXTENSION	
6	*	4-074-255-01	HOLDER (L), FRONT COVER	
7	*	4-074-254-01	HOLDER (R), FRONT COVER	
8	*	4-074-245-01	HINGE (F)	
9	*	4-074-627-01	COVER, BACK	
10	*	X-4037-461-1	PANEL ASSY, FRONT	including 11
11		3-704-176-51	EMBLEM (NO.6), SONY	
12	*	A-1390-984-A	NF MOUNT	
13	*	4-074-442-01	CATCHER (FC)	
14	*	4-074-253-01	HOLDER (L), B	
15	*	4-074-252-01	HOLDER (R), B	
16		1-468-457-11	POWER, LAMP	
17		4-374-303-01	RIVET, NYLON	
18		1-500-082-11	CLAMP, SLEEVE FERRITE	
19	*	4-074-272-01	COVER, TOP	
20	*	4-074-261-01	HOUSE, STRAP	
21	*	4-074-744-01	HOLDER, S	
22	*	4-074-248-01	KEY TOP	
23	*	4-074-244-01	GUIDE (LED), LIGHT	
24	*	A-1375-195-A	H COMPL	
25		1-529-544-11	SPEAKER (3.6CM)	
26	*	4-074-273-01	COVER, SIDE	
27		4-074-264-01	SHAFT	

5-2. Chassis

□ : 7-682-646-09 +PS 3x5
▲ : 7-682-253-30 +PS 2x8
● : 7-685-647-79 +BVTP 3x10
◇ : 7-685-903-21 +BTPWH 3x8
▽ : 7-685-645-79 +BVTP 3x6
○ : 7-682-247-09 +K 3x6

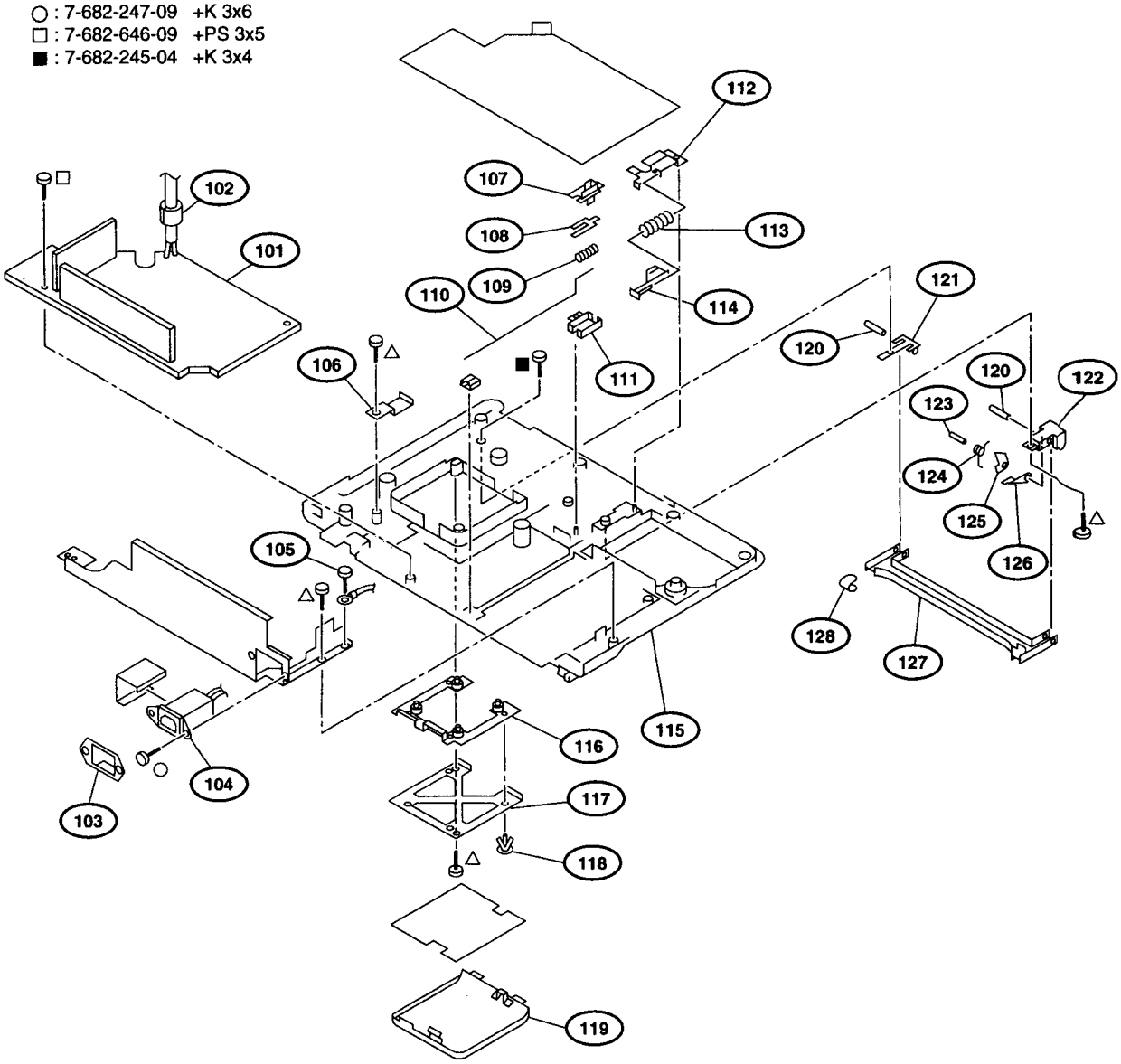


REF NO.		PART NO.	DESCRIPTION	REMARK
51	*	4-074-983-01	SPRING (CT), EARTH	
52	*	A-1335-123-A	C COMPL	
53		4-066-309-01	SCREW, MACHINE, (+) P M4X8	
54		A-1501-636-A	OPTICS BLOCK ASSY	including 152 to 192
55	*	X-4037-521-1	NOZZLE, ASSY	
56	*	A-1136-048-A	BA COMPL	
57	*	A-1275-186-A	QA COMPL	
58	*	A-1136-049-A	B COMPL	
59	*	4-074-914-01	COVER, SWITCH	
60	*	4-074-664-01	LEVER, SWITCH	
61	*	4-074-982-01	SPRING (VIDEO), EARTH	
62	*	4-074-246-01	SLEEVE, VIDEO	
63	*	4-074-263-01	FILTER, REAR	
64	*	4-074-260-01	PLATE (QA)	
65		1-763-474-11	FAN	

REF NO.		PART NO.	DESCRIPTION	REMARK
66	*	4-074-227-01	DUCT (T)	
67	*	4-074-226-01	DUCT (B)	
68	*	4-074-276-01	HOUSE, LAMP	
69	*	4-074-727-01	LOUVER (A)	
70	*	4-074-728-01	LOUVER (B)	
71		1-763-172-11	FAN, DC	
72	*	4-074-239-01	SCREW, FAN	
73		1-900-222-47	CONNECTOR ASSY 2P	
74		4-066-202-01	SCREW, M3	
75	*	X-4037-460-1	DOOR ASSY, LAMP	including 7(
76		4-066-202-01	SCREW, M3	

5-3. Base

△ : 7-685-547-14 +BTP 3x10
○ : 7-682-247-09 +K 3x6
□ : 7-682-646-09 +PS 3x5
■ : 7-682-245-04 +K 3x4

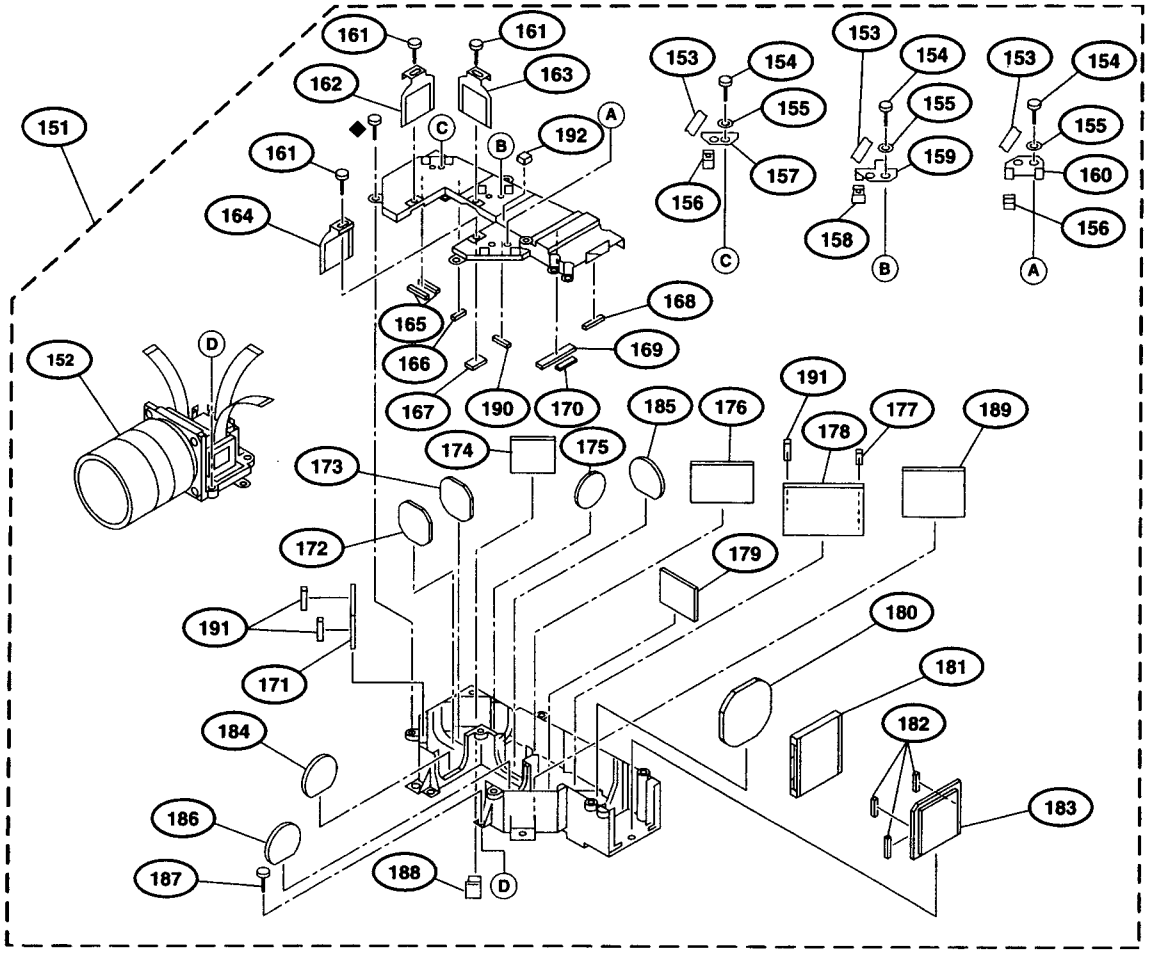


REF NO.		PART NO.	DESCRIPTION	REMARK
101	*	A-1316-492-A	GA COMPL	
102		1-500-082-11	CLAMP, SLEEVE FERRITE	
103	*	4-074-660-01	PLATE (AC)	
104	⚠	1-251-382-12	INLET, AC 3P(WITH NOISE FILTE)	
105		4-066-309-01	SCREW, MACHINE, (+) P M4X8	
106	*	4-074-663-01	SPRING (BL), EARTH	
107	*	4-074-256-01	CASE (U), L	
108	*	4-074-258-01	LOCK (REAR FOOT)	
109	*	4-074-435-01	SPRING, COMPRESSION	
110	*	4-074-247-01	ROD	
111	*	4-074-257-01	CASE (B), L	
112	*	4-074-724-01	CASE (RF)	
113	*	4-075-060-01	SPRING, COMPRESSION	
114	*	4-074-725-01	SLIDER (RF)	
115	*	4-074-274-01	BASE	

REF NO.		PART NO.	DESCRIPTION	REMARK
116	*	4-074-661-01	HOLDER, FAN	
117	*	4-074-662-01	PLATE, FAN HOLDER	
118		3-531-576-11	RIVET	
119	*	4-074-441-01	COVER, FILTER	
120		3-661-278-01	PIN, PARALLEL	
121	*	4-074-241-01	HOLDER (L), REAR FOOT	
122	*	4-074-242-01	HOLDER (R), REAR FOOT	
123		3-703-358-03	PIN, PARALLEL (DIA. 2X8)	
124	*	4-074-984-01	SPRING, TOSION	
125	*	4-074-729-01	PLATE (RF)	
126	*	4-074-726-01	LEVER (RF)	
127	*	4-074-267-01	FOOT, REAR	
128		4-074-250-01	RUBBER, FOOT (R)	

5-4. Optics (1/2)

◆: 7-682-547-04 +B 3x6

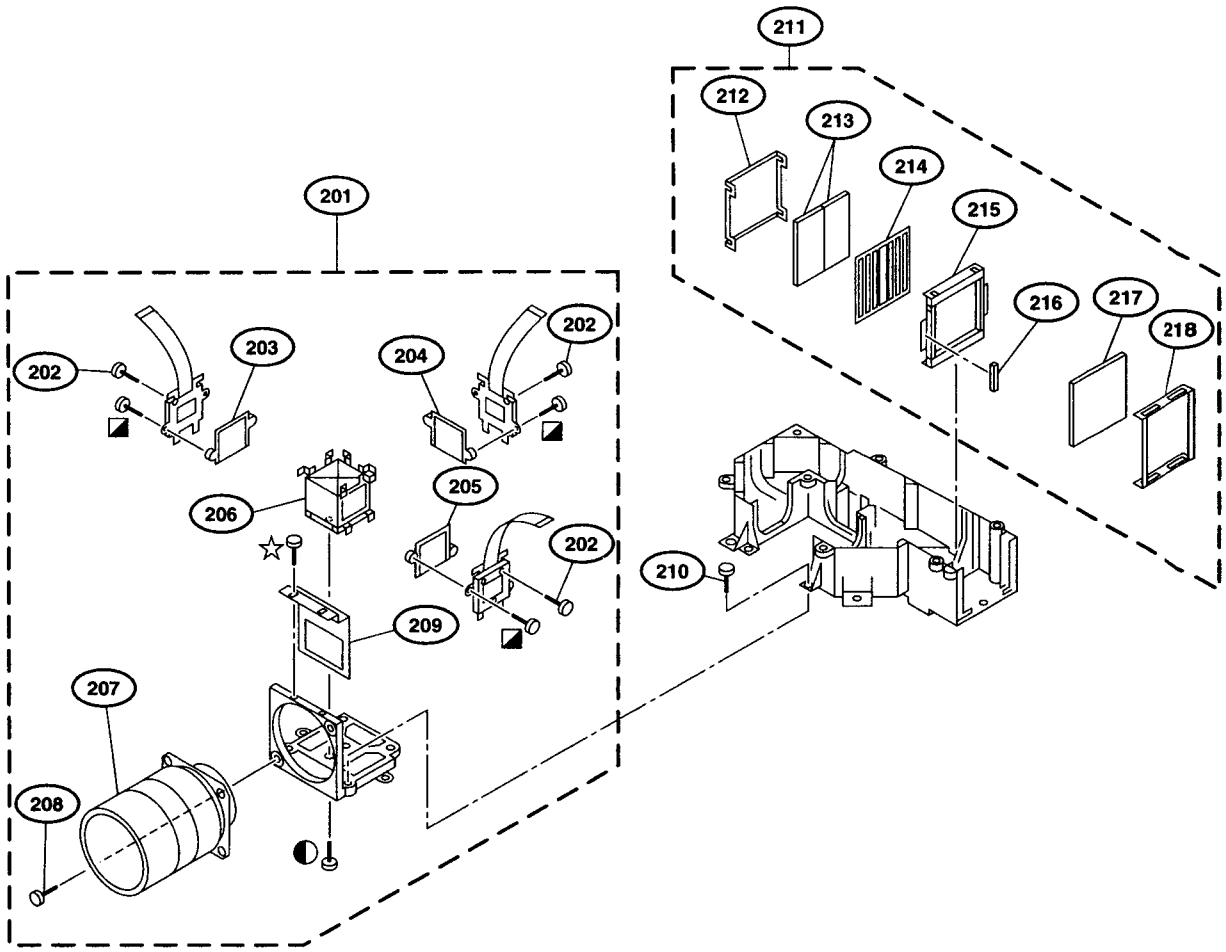


REF NO.		PART NO.	DESCRIPTION	REMARK
151		A-1501-636-A	OPTICS BLOCK ASSY	including 152 to 192
152		A-1484-705-A	PRISM BLOCK ASSY	including 202 to 209
153		4-074-425-01	TAPE (A), SEAL	
154		4-074-474-01	BSW M3X8	
155		4-066-174-01	STOPPER (OPT), ROTATION	
156	*	4-074-405-01	FASTENER (RB)	
157	*	4-074-454-01	ADJUSTER, R-MIRROR	
158	*	4-074-476-01	FASTNER (G)	
159	*	4-074-466-01	ADJUSTER, G-MIRROR	
160	*	4-074-455-01	ADJUSTER, B-MIRROR	
161		3-696-947-11	SCREW(+B2.5)	
162		A-1501-633-A	PANEL (R) ASSY, IN-POLARIZER	
163		A-1501-634-A	PANEL (G) ASSY, IN-POLARIZER	
164		A-1501-635-A	PANEL (B) ASSY, IN-POLARIZER	
165	*	4-074-429-01	STOPPER, RELAY LENS-2	
166	*	4-074-433-01	STOPPER, RELAY LENS-1	
167	*	4-074-432-01	STOPPER (GB), CH CONDENSER	
168	*	4-074-475-01	STOPPER, FLY EYE	
169	*	4-074-430-01	STOPPER, MAIN CONDENSER"	
170	*	4-074-428-01	STOPPER, P/S	
171	*	4-074-412-01	MIRROR, R-CHANNEL-2(OPT)	

REF NO.		PART NO.	DESCRIPTION	REMARK
172	*	4-074-410-01	LENS (OPT), RELAY-3	
173	*	4-074-409-01	LENS (OPT), RELAY-2	
174	*	4-074-413-01	MIRROR, R-CHANNEL -1(OPT)	
175	*	4-074-408-01	LENS (OPT), RELAY-1	
176	*	4-074-407-01	DICHROICMIRROR, G-REFRECT(OPT)	
177	*	4-074-427-01	CUSHION (B-DM)	
178	*	4-074-406-01	DICHROICMIRROR, B-REFRECT(OPT)	
179	*	4-074-411-01	FILTER (OPT), UV CUT	
180	*	4-074-414-01	LENS, MAIN CONDENSER (OPT)	
181		A-1484-706-A	P/S BLOCK ASSY	including 211 to 218
182	*	4-074-426-01	CUSHION (FLY EYE)	
183	*	4-074-449-01	FLY EYE LENS-1	
184	*	4-074-416-01	LENS, CONDENSER-R-CH(OPT)	
185	*	4-074-418-01	LENS, CONDENSER-G-CH(OPT)	
186	*	4-074-417-01	LENS, CONDENSER-B-CH(OPT)	
187		4-066-309-01	SCREW, MACHINE, (+) P M4X8	
188		4-066-172-01	FASTENER (OPT), MIRROR	
189	*	4-074-415-01	MIRROR, B-CHANNEL (OPT)	
190	*	4-074-429-11	STOPPER, RELAY LENS-2	
191	*	4-074-426-11	CUSHION (FLY EYE)	
192	*	4-075-039-01	SPACER (C) (OPT)	

5-5. Optics (2/2)

◪ : 7-685-103-19 +P 2x5
◐ : 7-682-948-01 +PSW 3x8
☆ : 7-627-554-38 +P 2x1.8



REF NO.		PART NO.	DESCRIPTION	REMARK
201		A-1484-705-A	PRISM BLOCK ASSY	including 202 to 209
202		4-074-473-01	+K M1.7X6	
203		A-1501-637-A	PANEL (R) ASSY, OUT-POLARIZER	
204		A-1501-638-A	PANEL (G) ASSY, OUT-POLARIZER	
205		A-1501-639-A	PANEL (B) ASSY, OUT-POLARIZER	
206		A-1484-705-A	PRISM ASSY, 4P	
207		A-1501-632-A	LENS, PROJECTION	
208		4-066-309-01	SCREW, MACHINE, (+) P M4X8	
209	*	4-074-701-01	BRACKET, WINDOW	
210		4-066-309-01	SCREW, MACHINE, (+) P M4X8	

REF NO.		PART NO.	DESCRIPTION	REMARK
211		A-1484-706-A	P/S BLOCK ASSY	including 212 to 218
212	*	4-074-456-01	SPRING, P/S	
213	*	4-074-446-01	CONVERTER, P/S (OPT)	
214	*	4-074-477-01	SLIT, P/S	
215	*	4-074-471-01	HOLDER, P/S	
216	*	4-074-426-11	CUSHION (FLY EYE)	
217	*	4-074-448-01	FLY EYE LENS-2	
218	*	4-074-457-01	SPRING, FLY EYE	

BA

Section 6
Electrical Parts List

NOTE :

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked * are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

RESISTORS
- All resistors are in ohms.
- F: nonflammable
- METAL: Metal-film resistor
- METAL OXIDE: Metal oxide-film resistor

Ref.No.	Part No.	Description				Remark
	* A-1136-048-A	BA COMPL				
		**********				
		<CAPACITOR>				
C201	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C202	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C221	1-117-681-11	ELECT CHIP	100µF	20%	16V	
C222	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C224	1-113-985-11	TANTAL. CHIP	10µF	20%	20V	
C225	1-104-852-11	TANTAL. CHIP	22µF	20%	10V	
C226	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C227	1-117-681-11	ELECT CHIP	100µF	20%	16V	
C228	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C230	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C232	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C233	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C234	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C235	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C236	1-117-681-11	ELECT CHIP	100µF	20%	16V	
C237	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C238	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C239	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C240	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C241	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C242	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C243	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V	
C244	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V	
C245	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C246	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C247	1-131-998-21	TANTALUM	82µF	20%	6.3V	
C274	1-104-823-11	TANTAL. CHIP	47µF	20%	16V	
C275	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C276	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C277	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C278	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C279	1-107-682-11	CERAMIC CHIP	1µF	10%	16V	
C280	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C281	1-109-982-11	CERAMIC CHIP	1µF	10%	10V	
C282	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C283	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C284	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C285	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C286	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C287	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C291	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C292	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C293	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C294	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C295	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C296	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C297	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C300	1-109-982-11	CERAMIC CHIP	1µF	10%	10V	
C301	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C302	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C303	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V	
C304	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C312	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C313	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C314	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V	
C315	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C317	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C318	1-126-603-11	ELECT CHIP	4.7µF	20%	35V	
C319	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C320	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C321	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C322	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C323	1-125-838-91	CERAMIC CHIP	2.2µF	10%	6.3V	
C324	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V	
C325	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C326	1-109-982-11	CERAMIC CHIP	1µF	10%	10V	
C327	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C328	1-109-982-11	CERAMIC CHIP	1µF	10%	10V	
C330	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C331	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C332	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C333	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C334	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C337	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C338	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
		<CONNECTOR>				
CN201	* 1-785-305-21	CONNECTOR, BOARD TO BOARD 70P				
		<FERRITEBEAD>				
FB201	1-414-235-22	INDUCTOR CHIP	0µH			
FB202	1-500-245-11	INDUCTOR CHIP	0µH			
FB271	1-414-235-22	INDUCTOR CHIP	0µH			

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Ref.No.	Part No.	Description			Remark
	<FILTER>				
FL221	1-239-397-11	FILTER, LOW PASS			
FL222	1-239-397-11	FILTER, LOW PASS			
FL223	1-239-397-11	FILTER, LOW PASS			
FL301	1-239-899-21	FILTER, CHIP EMI			
FL302	1-239-899-21	FILTER, CHIP EMI			
FL303	1-239-899-21	FILTER, CHIP EMI			
	<IC>				
IC201	8-752-072-94	IC CXA1875AM-T4			
IC202	8-759-492-55	IC M24C64-WMN6T			
IC221	8-752-390-37	IC CXD2064Q-T6			
IC271	8-752-070-54	IC CXA1839Q-T6			
IC301	8-752-094-47	IC CXA2123AQ-T6			
IC302	8-759-494-88	IC TC75S56F(TE85R)			
	<COIL>				
L221	1-414-753-91	INDUCTOR	4.7μH		
L222	1-414-235-22	INDUCTOR CHIP	0μH		
L223	1-414-753-91	INDUCTOR	4.7μH		
L224	1-414-753-91	INDUCTOR	4.7μH		
L225	1-414-753-91	INDUCTOR	4.7μH		
L226	1-414-753-91	INDUCTOR	4.7μH		
L271	1-414-235-22	INDUCTOR CHIP	0μH		
	<TRANSISTOR>				
Q221	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q222	8-729-216-22	TRANSISTOR 2SA1162-G			
Q226	8-729-216-22	TRANSISTOR 2SA1162-G			
Q227	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q228	8-729-216-22	TRANSISTOR 2SA1162-G			
Q229	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q271	8-729-013-28	TRANSISTOR HN1B01FU-TE85R			
Q272	8-729-013-28	TRANSISTOR HN1B01FU-TE85R			
Q273	8-729-013-28	TRANSISTOR HN1B01FU-TE85R			
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q303	8-729-230-49	TRANSISTOR 2SC2712-YG			
	<RESISTOR>				
R201	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R202	1-216-073-00	RES,CHIP	10K	5%	1/10W
R203	1-216-025-91	RES,CHIP	100	5%	1/10W
R204	1-216-025-91	RES,CHIP	100	5%	1/10W
R205	1-216-025-91	RES,CHIP	100	5%	1/10W
R206	1-216-025-91	RES,CHIP	100	5%	1/10W
R207	1-216-025-91	RES,CHIP	100	5%	1/10W
R208	1-216-025-91	RES,CHIP	100	5%	1/10W
R209	1-216-025-91	RES,CHIP	100	5%	1/10W
R210	1-216-025-91	RES,CHIP	100	5%	1/10W
R211	1-216-073-00	RES,CHIP	10K	5%	1/10W
R212	1-216-073-00	RES,CHIP	10K	5%	1/10W
R213	1-216-025-91	RES,CHIP	100	5%	1/10W
R214	1-216-025-91	RES,CHIP	100	5%	1/10W
R215	1-216-025-91	RES,CHIP	100	5%	1/10W
R216	1-216-073-00	RES,CHIP	10K	5%	1/10W
R217	1-216-073-00	RES,CHIP	10K	5%	1/10W
R218	1-216-073-00	RES,CHIP	10K	5%	1/10W
R222	1-216-081-00	RES,CHIP	22K	5%	1/10W
R223	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R225	1-216-043-91	RES,CHIP	560	5%	1/10W
R227	1-216-049-91	RES,CHIP	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R228	1-216-049-91	RES,CHIP	1K	5%	1/10W
R230	1-216-085-00	RES,CHIP	33K	5%	1/10W
R231	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R234	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R235	1-216-043-91	RES,CHIP	560	5%	1/10W
R236	1-216-295-91	SHORT		0	
R237	1-216-049-91	RES,CHIP	1K	5%	1/10W
R239	1-216-049-91	RES,CHIP	1K	5%	1/10W
R242	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R243	1-216-043-91	RES,CHIP	560	5%	1/10W
R244	1-216-025-91	RES,CHIP	100	5%	1/10W
R245	1-216-049-91	RES,CHIP	1K	5%	1/10W
R247	1-216-043-91	RES,CHIP	560	5%	1/10W
R249	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R250	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R251	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R252	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R253	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R254	1-216-091-00	RES,CHIP	56K	5%	1/10W
R255	1-216-043-91	RES,CHIP	560	5%	1/10W
R256	1-216-295-91	SHORT	0		
R258	1-216-295-91	SHORT	0		
R259	1-216-295-91	SHORT	0		
R271	1-216-025-91	RES,CHIP	100	5%	1/10W
R272	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R273	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R274	1-216-083-00	RES,CHIP	27K	5%	1/10W
R275	1-216-295-91	SHORT	0		
R276	1-216-081-00	RES,CHIP	22K	5%	1/10W
R277	1-216-085-00	RES,CHIP	33K	5%	1/10W
R278	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R279	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R280	1-216-081-00	RES,CHIP	22K	5%	1/10W
R281	1-216-295-91	SHORT	0		
R282	1-216-085-00	RES,CHIP	33K	5%	1/10W
R283	1-216-073-00	RES,CHIP	10K	5%	1/10W
R284	1-216-025-91	RES,CHIP	100	5%	1/10W
R285	1-216-025-91	RES,CHIP	100	5%	1/10W
R286	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R287	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R288	1-216-025-91	RES,CHIP	100	5%	1/10W
R289	1-216-025-91	RES,CHIP	100	5%	1/10W
R290	1-216-025-91	RES,CHIP	100	5%	1/10W
R291	1-216-081-00	RES,CHIP	22K	5%	1/10W
R292	1-216-085-00	RES,CHIP	33K	5%	1/10W
R293	1-216-295-91	SHORT	0		
R294	1-216-049-91	RES,CHIP	1K	5%	1/10W
R296	1-216-033-00	RES,CHIP	220	5%	1/10W
R298	1-216-025-91	RES,CHIP	100	5%	1/10W
R299	1-216-025-91	RES,CHIP	100	5%	1/10W
R300	1-216-025-91	RES,CHIP	100	5%	1/10W
R302	1-216-295-91	SHORT	0		
R303	1-216-295-91	SHORT	0		
R304	1-208-796-11	METAL CHIP	3.9K	0.50%	1/10W
R305	1-216-025-91	RES,CHIP	100	5%	1/10W
R306	1-216-037-00	RES,CHIP	330	5%	1/10W
R309	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R310	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R311	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R312	1-216-025-91	RES,CHIP	100	5%	1/10W
R313	1-216-025-91	RES,CHIP	100	5%	1/10W
R314	1-216-049-91	RES,CHIP	1K	5%	1/10W
R315	1-216-049-91	RES,CHIP	1K	5%	1/10W
R316	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R317	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R318	1-216-017-91	RES,CHIP	47	5%	1/10W

Ref.No.	Part No.	Description			Remark
R319	1-216-017-91	RES,CHIP	47	5%	1/10W
R320	1-216-017-91	RES,CHIP	47	5%	1/10W
R321	1-216-025-91	RES,CHIP	100	5%	1/10W
R322	1-216-295-91	SHORT	0		
R324	1-216-017-91	RES,CHIP	47	5%	1/10W
	<CRYSTAL>				
X301	1-781-730-21	VIBRATOR, CRYSTAL (16.2MHz)			
**********					
	* A-1136-049-A	B COMPL			
		**********			
	<CAPACITOR>				
C401	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C402	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C403	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C404	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C405	1-126-204-11	ELECT CHIP	47µF	20%	16V
C406	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C407	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C408	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C409	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C410	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C411	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C412	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C413	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C414	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C415	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C416	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C417	1-126-204-11	ELECT CHIP	47µF	20%	16V
C420	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C421	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C422	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C424	1-126-204-11	ELECT CHIP	47µF	20%	16V
C426	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C427	1-115-566-11	CERAMIC CHIP	4.7µF	10%	10V
C428	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C429	1-115-566-11	CERAMIC CHIP	4.7µF	10%	10V
C430	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C431	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C432	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C433	1-115-566-11	CERAMIC CHIP	4.7µF	10%	10V
C434	1-115-566-11	CERAMIC CHIP	4.7µF	10%	10V
C435	1-115-566-11	CERAMIC CHIP	4.7µF	10%	10V
C436	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C437	1-124-779-00	ELECT CHIP	10µF	20%	16V
C438	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C439	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C440	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C442	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C443	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C444	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C445	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C446	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C447	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C448	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C449	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C450	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C451	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C452	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C453	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C454	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C455	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C456	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C457	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C458	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C459	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C460	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C461	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C462	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C463	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C464	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C465	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C466	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C467	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C468	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C469	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C470	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C471	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C472	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C473	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C474	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C475	1-115-467-11	CERAMIC CHIP	0.22µF	10%	10V
C477	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C478	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C479	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C480	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C481	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C482	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C483	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C484	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C485	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C486	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C487	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C489	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C490	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C491	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C495	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C496	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C497	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C498	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C499	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C500	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C501	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C502	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C504	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C505	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C506	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C507	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C508	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C509	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C510	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C511	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C512	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C513	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C514	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C515	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C516	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C517	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C518	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C519	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C520	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C521	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C522	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C523	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V
C524	1-107-826-91	CERAMIC CHIP	0.1µF	10%	16V

B

Ref.No.	Part No.	Description	Remark
C525	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C526	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C527	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C528	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C529	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C530	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C531	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C532	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C533	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C534	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C535	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C536	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C537	1-162-970-11	CERAMIC CHIP 0.01µF 10% 25V	
C538	1-115-156-11	CERAMIC CHIP 1µF 10V	
C539	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C540	1-115-156-11	CERAMIC CHIP 1µF 10V	
C541	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C542	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C543	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C544	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C545	1-164-315-11	CERAMIC CHIP 470PF 5% 50V	
C546	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V	
C547	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V	
C548	1-124-778-00	ELECT CHIP 22µF 20% 6.3V	
C549	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C550	1-124-778-00	ELECT CHIP 22µF 20% 6.3V	
C551	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C553	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C554	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C555	1-124-778-00	ELECT CHIP 22µF 20% 6.3V	
C556	1-162-970-11	CERAMIC CHIP 0.01µF 10% 25V	
C557	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C558	1-124-778-00	ELECT CHIP 22µF 20% 6.3V	
C559	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C560	1-162-966-11	CERAMIC CHIP 0.0022µF 10% 50V	
C561	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C562	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C563	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C564	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C565	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C566	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C567	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C568	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C569	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C571	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C572	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C573	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C574	1-124-778-00	ELECT CHIP 22µF 20% 6.3V	
C575	1-162-970-11	CERAMIC CHIP 0.01µF 10% 25V	
C576	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C577	1-124-778-00	ELECT CHIP 22µF 20% 6.3V	
C578	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
C579	1-162-970-11	CERAMIC CHIP 0.01µF 10% 25V	
C581	1-107-826-91	CERAMIC CHIP 0.1µF 10% 16V	
		<CONNECTOR>	
CN401	* 1-785-305-21	CONNECTOR, BOARD TO BOARD 70P	
CN402	* 1-793-797-21	CONNECTOR, BOARD TO BOARD	
CN403	* 1-793-797-21	CONNECTOR, BOARD TO BOARD	
CN404	1-569-577-41	CONNECTOR, D-SUB 15P	
CN405	1-774-932-21	CONNECTOR, FF C/FPC (ZIF) 32P	
CN406	* 1-691-551-11	PIN, CONNECTOR (SMD) 8P	

Ref.No.	Part No.	Description	Remark
		<DIODE>	
D401	8-719-800-76	DIODE 1SS226	
D402	8-719-800-76	DIODE 1SS226	
D403	8-719-800-76	DIODE 1SS226	
D404	8-719-800-76	DIODE 1SS226	
D406	8-719-800-76	DIODE 1SS226	
D408	8-719-914-43	DIODE DAN202K	
D409	8-719-914-43	DIODE DAN202K	
D410	8-719-158-15	DIODE RD5.6SB	
D411	8-719-158-15	DIODE RD5.6SB	
D412	8-719-158-15	DIODE RD5.6SB	
D413	8-719-988-61	DIODE 1SS355TE-17	
D414	8-719-988-61	DIODE 1SS355TE-17	
D415	8-719-158-15	DIODE RD5.6SB	
		<FERRITE BEAD>	
FB401	1-414-234-22	INDUCTOR CHIP	0µH
FB402	1-414-234-22	INDUCTOR CHIP	0µH
FB403	1-414-234-22	INDUCTOR CHIP	0µH
FB404	1-414-234-22	INDUCTOR CHIP	0µH
FB405	1-414-234-22	INDUCTOR CHIP	0µH
FB406	1-414-234-22	INDUCTOR CHIP	0µH
FB407	1-414-234-22	INDUCTOR CHIP	0µH
FB409	1-414-234-22	INDUCTOR CHIP	0µH
FB410	1-414-234-22	INDUCTOR CHIP	0µH
FB411	1-414-234-22	INDUCTOR CHIP	0µH
FB412	1-414-234-22	INDUCTOR CHIP	0µH
FB413	1-414-234-22	INDUCTOR CHIP	0µH
FB414	1-414-234-22	INDUCTOR CHIP	0µH
		<IC>	
IC401	8-759-472-00	IC 74VHC14MTCX	
IC402	8-759-472-37	IC 74VHC240MTCX	
IC403	8-759-196-96	IC TC7SH08FU-TE85R	
IC404	8-759-541-25	IC M52758FP	
IC405	8-759-472-35	IC 74VHC221AMTCX	
IC406	8-752-072-94	IC CXA1875AM-T4	
IC407	8-759-646-02	IC M52347FP-TE	
IC408	8-759-475-39	IC TC74LCX74FT(EL)	
IC409	8-759-645-12	IC AD9884AKS-140	
IC410	8-759-473-74	IC SN74CBTD3306PWR	
IC411	8-759-472-14	IC 74VHC125MTCX	
IC412	8-759-563-33	IC CXD8774R	
IC413	8-759-660-44	IC THC63LVDM83A-T	
IC417	8-759-647-95	IC IP00C711	
IC418	8-759-082-58	IC TC7W08FU	
IC419	8-759-582-91	IC S-80842ANNP-ED6-T2	
IC420	8-759-544-01	IC S-80828ANNP-EDR-T2	
IC421	8-759-475-35	IC TC74LCX04FT(EL)	
IC423	8-759-389-68	IC 74VHCT04MTCX	
IC424	8-759-655-76	IC MB90098APF-G-104-BND-ER	
IC425	8-759-475-53	IC TC74LCX541FT(EL)	
IC426	8-759-557-86	IC NC7SZ86P5X	
IC427	8-759-648-10	IC HD64F2633TE	
IC428	8-759-058-58	IC TC7S04FU(TE85R)	
IC429	8-759-442-20	IC 24LC21AT/SN	
IC430	8-759-277-63	IC TC7W14FU(TE12R)	
		<COIL>	
L401	1-412-057-21	INDUCTOR CHIP	6.8µH
L402	1-500-451-11	FERRITE	0µH
L403	1-414-752-11	INDUCTOR	2.2µH
L404	1-414-752-11	INDUCTOR	2.2µH

Ref.No.	Part No.	Description			Remark
	<TRANSISTOR>				
Q401	8-729-013-28	TRANSISTOR HN1B01FU-TE85R			
Q402	8-729-013-28	TRANSISTOR HN1B01FU-TE85R			
Q403	8-729-101-07	TRANSISTOR 2SB798-DL			
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q405	8-729-140-63	TRANSISTOR 2SA1611-M5M6			
	<RESISTOR>				
R401	1-216-805-11	RES,CHIP	47	5%	1/16W
R402	1-216-809-11	RES,CHIP	100	5%	1/16W
R403	1-216-821-11	RES,CHIP	1K	5%	1/16W
R404	1-216-805-11	RES,CHIP	47	5%	1/16W
R405	1-216-805-11	RES,CHIP	47	5%	1/16W
R406	1-216-805-11	RES,CHIP	47	5%	1/16W
R407	1-216-809-11	RES,CHIP	100	5%	1/16W
R408	1-216-833-91	RES,CHIP	10K	5%	1/16W
R409	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R410	1-216-805-11	RES,CHIP	47	5%	1/16W
R411	1-218-668-11	METAL CHIP	100	5%	1/16W
R412	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R413	1-216-686-11	METAL CHIP	560	5%	1/16W
R414	1-216-805-11	RES,CHIP	47	5%	1/16W
R415	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R416	1-216-797-11	RES,CHIP	10	5%	1/16W
R417	1-218-668-11	METAL CHIP	100	5%	1/16W
R418	1-218-686-11	METAL CHIP	560	5%	1/16W
R419	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R420	1-218-668-11	METAL CHIP	100	5%	1/16W
R421	1-218-686-11	METAL CHIP	560	5%	1/16W
R422	1-216-833-91	RES,CHIP	10K	5%	1/16W
R423	1-216-809-11	RES,CHIP	100	5%	1/16W
R424	1-216-809-11	RES,CHIP	100	5%	1/16W
R425	1-216-805-11	RES,CHIP	47	5%	1/16W
R426	1-216-625-11	METAL CHIP	82	0.50%	1/10W
R427	1-216-833-91	RES,CHIP	10K	5%	1/16W
R428	1-216-809-11	RES,CHIP	100	5%	1/16W
R429	1-216-809-11	RES,CHIP	100	5%	1/16W
R430	1-216-809-11	RES,CHIP	100	5%	1/16W
R431	1-216-833-91	RES,CHIP	10K	5%	1/16W
R432	1-216-805-11	RES,CHIP	47	5%	1/16W
R433	1-216-864-11	SHORT	0		
R434	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R435	1-216-821-11	RES,CHIP	1K	5%	1/16W
R436	1-216-821-11	RES,CHIP	1K	5%	1/16W
R437	1-216-841-11	RES,CHIP	47K	5%	1/16W
R438	1-216-864-11	SHORT	0		
R439	1-216-805-11	RES,CHIP	47	5%	1/16W
R440	1-216-821-11	RES,CHIP	1K	5%	1/16W
R443	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R444	1-216-805-11	RES,CHIP	47	5%	1/16W
R445	1-216-864-11	SHORT	0		
R446	1-218-732-11	METAL CHIP	47K	0.50%	1/16W
R447	1-216-821-11	RES,CHIP	1K	5%	1/16W
R448	1-216-811-11	RES,CHIP	150	5%	1/16W
R449	1-216-864-11	SHORT	0		
R450	1-216-864-11	SHORT	0		
R451	1-216-821-11	RES,CHIP	1K	5%	1/16W
R452	1-216-821-11	RES,CHIP	1K	5%	1/16W
R453	1-216-810-11	RES,CHIP	120	5%	1/16W
R454	1-216-805-11	RES,CHIP	47	5%	1/16W
R455	1-216-805-11	RES,CHIP	47	5%	1/16W
R456	1-216-801-11	RES,CHIP	22	5%	1/16W
R458	1-216-801-11	RES,CHIP	22	5%	1/16W
R459	1-216-833-91	RES,CHIP	10K	5%	1/16W
R460	1-216-833-91	RES,CHIP	10K	5%	1/16W

Ref.No.	Part No.	Description			Remark
R461	1-216-833-91	RES,CHIP	10K	5%	1/16W
R462	1-216-833-91	RES,CHIP	10K	5%	1/16W
R463	1-216-833-91	RES,CHIP	10K	5%	1/16W
R464	1-216-833-91	RES,CHIP	10K	5%	1/16W
R465	1-216-833-91	RES,CHIP	10K	5%	1/16W
R466	1-216-833-91	RES,CHIP	10K	5%	1/16W
R467	1-216-833-91	RES,CHIP	10K	5%	1/16W
R468	1-216-833-91	RES,CHIP	10K	5%	1/16W
R469	1-216-833-91	RES,CHIP	10K	5%	1/16W
R470	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R471	1-216-827-11	RES,CHIP	3.3K	5%	1/16W
R472	1-216-809-11	RES,CHIP	100	5%	1/16W
R473	1-216-833-91	RES,CHIP	10K	5%	1/16W
R474	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W
R476	1-216-801-11	RES,CHIP	22	5%	1/16W
R477	1-216-801-11	RES,CHIP	22	5%	1/16W
R479	1-216-833-91	RES,CHIP	10K	5%	1/16W
R480	1-216-839-11	RES,CHIP	33K	5%	1/16W
R481	1-216-839-11	RES,CHIP	33K	5%	1/16W
R482	1-216-805-11	RES,CHIP	47	5%	1/16W
R483	1-216-821-11	RES,CHIP	1K	5%	1/16W
R484	1-216-811-11	RES,CHIP	150	5%	1/16W
R485	1-216-841-11	RES,CHIP	47K	5%	1/16W
R486	1-216-808-11	RES,CHIP	82	5%	1/16W
R487	1-216-805-11	RES,CHIP	47	5%	1/16W
R488	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R489	1-216-833-91	RES,CHIP	10K	5%	1/16W
R490	1-218-703-11	METAL CHIP	3K	0.50%	1/16W
R491	1-216-809-11	RES,CHIP	100	5%	1/16W
R492	1-216-864-11	SHORT	0		
R495	1-216-821-11	RES,CHIP	1K	5%	1/16W
R496	1-216-805-11	RES,CHIP	47	5%	1/16W
R497	1-216-805-11	RES,CHIP	47	5%	1/16W
R499	1-216-805-11	RES,CHIP	47	5%	1/16W
R500	1-216-864-11	SHORT	0		
R501	1-216-809-11	RES,CHIP	100	5%	1/16W
R502	1-216-809-11	RES,CHIP	100	5%	1/16W
R503	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R504	1-216-809-11	RES,CHIP	100	5%	1/16W
R505	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R506	1-216-809-11	RES,CHIP	100	5%	1/16W
R507	1-216-809-11	RES,CHIP	100	5%	1/16W
R508	1-216-809-11	RES,CHIP	100	5%	1/16W
R509	1-216-833-91	RES,CHIP	10K	5%	1/16W
R510	1-216-833-91	RES,CHIP	10K	5%	1/16W
R511	1-216-801-11	RES,CHIP	22	5%	1/16W
R512	1-216-833-91	RES,CHIP	10K	5%	1/16W
R513	1-216-833-91	RES,CHIP	10K	5%	1/16W
R514	1-216-833-91	RES,CHIP	10K	5%	1/16W
R515	1-216-809-11	RES,CHIP	100	5%	1/16W
R516	1-216-809-11	RES,CHIP	100	5%	1/16W
R517	1-216-809-11	RES,CHIP	100	5%	1/16W
R518	1-216-809-11	RES,CHIP	100	5%	1/16W
R519	1-216-833-91	RES,CHIP	10K	5%	1/16W
R520	1-216-809-11	RES,CHIP	100	5%	1/16W
R521	1-216-833-91	RES,CHIP	10K	5%	1/16W
R522	1-216-809-11	RES,CHIP	100	5%	1/16W
R523	1-216-809-11	RES,CHIP	100	5%	1/16W
R524	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R525	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R526	1-216-809-11	RES,CHIP	100	5%	1/16W
R527	1-216-809-11	RES,CHIP	100	5%	1/16W
R528	1-216-809-11	RES,CHIP	100	5%	1/16W
R529	1-216-833-91	RES,CHIP	10K	5%	1/16W
R530	1-216-833-91	RES,CHIP	10K	5%	1/16W
R531	1-216-809-11	RES,CHIP	100	5%	1/16W

B QA

Ref.No.	Part No.	Description			Remark
R532	1-216-809-11	RES,CHIP	100	5%	1/16W
R533	1-216-809-11	RES,CHIP	100	5%	1/16W
R534	1-216-809-11	RES,CHIP	100	5%	1/16W
R535	1-216-809-11	RES,CHIP	100	5%	1/16W
R536	1-216-809-11	RES,CHIP	100	5%	1/16W
R537	1-216-833-91	RES,CHIP	10K	5%	1/16W
R538	1-216-833-91	RES,CHIP	10K	5%	1/16W
R539	1-216-833-91	RES,CHIP	10K	5%	1/16W
R540	1-216-809-11	RES,CHIP	100	5%	1/16W
R541	1-216-809-11	RES,CHIP	100	5%	1/16W
R542	1-216-809-11	RES,CHIP	100	5%	1/16W
R543	1-216-809-11	RES,CHIP	100	5%	1/16W
R544	1-216-801-11	RES,CHIP	22	5%	1/16W
R545	1-216-809-11	RES,CHIP	100	5%	1/16W
R546	1-216-809-11	RES,CHIP	100	5%	1/16W
R547	1-216-809-11	RES,CHIP	100	5%	1/16W
R548	1-216-809-11	RES,CHIP	100	5%	1/16W
R549	1-216-809-11	RES,CHIP	100	5%	1/16W
R550	1-216-833-91	RES,CHIP	10K	5%	1/16W
R551	1-216-833-91	RES,CHIP	10K	5%	1/16W
R553	1-216-809-11	RES,CHIP	100	5%	1/16W
R554	1-216-833-91	RES,CHIP	10K	5%	1/16W
R555	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R556	1-216-825-11	RES,CHIP	2.2K	5%	1/16W
R557	1-216-821-11	RES,CHIP	1K	5%	1/16W
R558	1-216-809-11	RES,CHIP	100	5%	1/16W
R559	1-216-809-11	RES,CHIP	100	5%	1/16W
R560	1-216-833-91	RES,CHIP	10K	5%	1/16W
R561	1-216-833-91	RES,CHIP	10K	5%	1/16W
R562	1-216-809-11	RES,CHIP	100	5%	1/16W
R563	1-216-833-91	RES,CHIP	10K	5%	1/16W
R564	1-216-833-91	RES,CHIP	10K	5%	1/16W
R565	1-216-833-91	RES,CHIP	10K	5%	1/16W
R566	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R567	1-216-829-11	RES,CHIP	4.7K	5%	1/16W
R568	1-216-833-91	RES,CHIP	10K	5%	1/16W
R576	1-216-809-11	RES,CHIP	100	5%	1/16W
R577	1-216-809-11	RES,CHIP	100	5%	1/16W
R583	1-216-809-11	RES,CHIP	100	5%	1/16W
R584	1-216-833-91	RES,CHIP	10K	5%	1/16W
R585	1-216-797-11	RES,CHIP	10	5%	1/16W
R587	1-216-835-11	RES,CHIP	15K	5%	1/16W
R588	1-216-835-11	RES,CHIP	15K	5%	1/16W
R589	1-216-841-11	RES,CHIP	47K	5%	1/16W
R590	1-216-845-11	RES,CHIP	100K	5%	1/16W
R591	1-216-805-11	RES,CHIP	47	5%	1/16W
R592	1-216-805-11	RES,CHIP	47	5%	1/16W
R593	1-216-813-11	RES,CHIP	220	5%	1/16W
R594	1-216-817-11	RES,CHIP	470	5%	1/16W
R595	1-216-817-11	RES,CHIP	470	5%	1/16W
R597	1-216-821-11	RES,CHIP	1K	5%	1/16W

<NETWORK>

RB401	1-233-576-11	RES, CHIP NET	WORK 100
RB402	1-233-576-11	RES, CHIP NET	WORK 100
RB403	1-233-576-11	RES, CHIP NET	WORK 100
RB404	1-233-576-11	RES, CHIP NET	WORK 100
RB405	1-233-576-11	RES, CHIP NET	WORK 100
RB406	1-233-576-11	RES, CHIP NET	WORK 100
RB407	1-233-576-11	RES, CHIP NET	WORK 100
RB408	1-233-576-11	RES, CHIP NET	WORK 100
RB409	1-233-576-11	RES, CHIP NET	WORK 100
RB410	1-233-576-11	RES, CHIP NET	WORK 100
RB411	1-233-576-11	RES, CHIP NET	WORK 100
RB412	1-233-576-11	RES, CHIP NET	WORK 100
RB413	1-233-576-11	RES, CHIP NET	WORK 100
RB414	1-233-576-11	RES, CHIP NET	WORK 100
RB415	1-233-576-11	RES, CHIP NET	WORK 100
RB416	1-233-576-11	RES, CHIP NET	WORK 100
RB417	1-233-576-11	RES, CHIP NET	WORK 100
RB418	1-233-576-11	RES, CHIP NET	WORK 100
RB419	1-239-409-11	RES, CHIP NET	WORK 47-3216
RB520	1-233-576-11	RES, CHIP NET	WORK 100
RB521	1-233-576-11	RES, CHIP NET	WORK 100
RB522	1-233-576-11	RES, CHIP NET	WORK 100
RB523	1-233-576-11	RES, CHIP NET	WORK 100
RB524	1-233-576-11	RES, CHIP NET	WORK 100
RB525	1-233-576-11	RES, CHIP NET	WORK 100
RB526	1-233-576-11	RES, CHIP NET	WORK 100

<THERMISTOR>

TH201	1-809-020-11	THERMISTOR

<TEST PIN>

TP401	1-535-757-11	CHIP, CHECKER
TP402	1-535-757-11	CHIP, CHECKER
TP403	1-535-757-11	CHIP, CHECKER
TP404	1-535-757-11	CHIP, CHECKER
TP405	1-535-757-11	CHIP, CHECKER
TP406	1-535-757-11	CHIP, CHECKER
TP407	1-535-757-11	CHIP, CHECKER

<CRYSTAL>

X401	1-781-420-21	OSCILLATOR, CRYSTAL (52MHz)
X402	1-781-063-21	OSCILLATOR, CRYSTAL (70MHz)
X403	1-781-659-21	VIBRATOR, CRYSTAL (12.288MHz)

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* A-1275-186-B QA COMPL
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<CAPACITOR>

C101	1-124-779-00	ELECT CHIP	10µF	20%	16V
C102	1-126-204-11	ELECT CHIP	47µF	20%	16V
C103	1-126-204-11	ELECT CHIP	47µF	20%	16V
C104	1-113-985-11	TANTAL. CHIP	10µF	20%	20V
C105	1-113-985-11	TANTAL. CHIP	10µF	20%	20V
C106	1-126-395-11	ELECT CHIP	22µF	20%	16V
C107	1-126-395-11	ELECT CHIP	22µF	20%	16V
C108	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C109	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C110	1-126-397-11	ELECT CHIP	33µF	20%	25V
C111	1-126-204-11	ELECT CHIP	47µF	20%	16V
C112	1-126-395-11	ELECT CHIP	22µF	20%	16V
C113	1-131-998-21	TANTALUM	82µF	20%	6.3V
C114	1-164-182-11	CERAMIC CHIP	0.0033µF	10%	50V
C115	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C116	1-126-395-11	ELECT CHIP	22µF	20%	16V
C117	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C118	1-119-667-11	CERAMIC CHIP	22µF		10V
C119	1-113-500-11	TANTAL. CHIP	100µF	20%	10V
C120	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C121	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C122	1-117-681-11	ELECT CHIP	100µF	20%	16V
C123	1-119-667-11	CERAMIC CHIP	22µF		10V

Ref.No.	Part No.	Description			Remark
C124	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C125	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C126	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C127	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C128	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C129	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C130	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C131	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C132	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C133	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C134	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C135	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C136	1-117-370-11	CERAMIC CHIP	10µF		10V
C137	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C138	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C139	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C140	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C141	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C142	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C143	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C144	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C146	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C148	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C149	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C150	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C151	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C152	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C153	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C154	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C155	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C156	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C157	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C158	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C159	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C160	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C161	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C162	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C163	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
C164	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C165	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C166	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C169	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
	<CONNECTOR>				
CN101	* 1-580-057-11	PIN, CONNECTOR (SMD) 4P			
CN102	* 1-760-388-11	CONNECTOR PIN(SMD) 9 PIN			
CN103	* 1-785-306-21	CONNECTOR, BOARD TO BOARD 70P			
CN104	* 1-785-306-21	CONNECTOR, BOARD TO BOARD 70P			
CN105	* 1-793-798-21	CONNECTOR, BOARD TO BOARD			
CN106	1-784-292-11	CONNECTOR, MINIATUREDIN 4P			
CN122	1-794-081-21	CONNECTOR, ROUND TYPE 6P			
CN123	* 1-580-056-21	PIN, CONNECTOR (SMD) 3P			
	<DIODE>				
D101	8-719-158-15	DIODE RD5.6SB			
D102	8-719-158-15	DIODE RD5.6SB			
D103	8-719-158-15	DIODE RD5.6SB			
D104	8-719-158-15	DIODE RD5.6SB			
D105	8-719-158-37	DIODE RD9.1SB2			
D106	8-719-158-37	DIODE RD9.1SB2			
D107	8-719-055-30	DIODE D1FS4A-TA			
D108	8-719-055-30	DIODE D1FS4A-TA			
D109	8-719-988-61	DIODE 1SS355TE-17			
D121	8-719-058-24	DIODE RB501V-40TE-17			

Ref.No.	Part No.	Description			Remark
D122	8-719-158-15	DIODE RD5.6SB			
D123	8-719-058-24	DIODE RB501V-40TE-17			
D124	8-719-422-12	DIODE MA8039			
D125	8-719-422-12	DIODE MA8039			
D126	8-719-158-15	DIODE RD5.6SB			
D127	8-719-158-15	DIODE RD5.6SB			
D128	8-719-158-15	DIODE RD5.6SB			
D129	8-719-422-12	DIODE MA8039			
D130	8-719-422-12	DIODE MA8039			
D131	8-719-914-43	DIODE DAN202K			
D133	8-719-058-24	DIODE RB501V-40TE-17			
D135	8-719-058-24	DIODE RB501V-40TE-17			
	<FERRITE BEAD>				
FB121	1-414-234-22	INDUCTOR CHIP			0µH
FB122	1-469-185-11	FERRITE			0µH
FB123	1-414-234-22	INDUCTOR CHIP			0µH
FB124	1-414-234-22	INDUCTOR CHIP			0µH
FB125	1-469-185-11	FERRITE			0µH
FB126	1-216-295-91	SHORT			0
FB127	1-469-185-11	FERRITE			0µH
FB128	1-414-234-22	INDUCTOR CHIP			0µH
FB129	1-414-234-22	INDUCTOR CHIP			0µH
FB130	1-414-234-22	INDUCTOR CHIP			0µH
FB131	1-469-185-11	FERRITE			0µH
FB132	1-414-234-22	INDUCTOR CHIP			0µH
FB133	1-216-295-91	SHORT			0
FB134	1-216-295-91	SHORT			0
FB136	1-500-451-11	FERRITE			0µH
FB137	1-216-295-91	SHORT			0
FB138	1-216-295-91	SHORT			0
FB139	1-500-451-11	FERRITE			0µH
	<FILTER>				
FL101	1-239-899-21	FILTER, CHIP	EMI		
FL102	1-239-899-21	FILTER, CHIP	EMI		
FL103	1-239-899-21	FILTER, CHIP	EMI		
FL104	1-239-899-21	FILTER, CHIP	EMI		
FL105	1-239-899-21	FILTER, CHIP	EMI		
	<IC>				
IC101	8-759-460-72	IC BA033FP-E2			
IC102	8-759-460-72	IC BA033FP-E2			
IC103	8-759-335-28	IC TA78M09F(TE16L)			
IC104	8-759-157-17	IC PQ05SZ1U			
IC105	8-759-637-94	IC LT1376IS#TR			
IC106	8-759-157-17	IC PQ05SZ1U			
IC107	8-759-066-55	IC TA75W393FU			
IC108	8-759-066-55	IC TA75W393FU			
IC121	8-719-066-43	DIODE GP1U28Y			
IC122	8-759-654-25	IC RCV4-A1S-OTP			
IC123	8-759-653-02	IC IRMF			
IC124	8-759-582-91	IC S-80842ANNP-ED6-T2			
IC125	8-759-666-01	IC ST72T631L4M1-101			
IC127	8-759-655-55	IC UPD72012GB-003-3B4			
IC128	8-759-655-59	IC UPD16875G-E2			
	<JACK>				
J101	1-794-014-11	PIN, JACK			
J102	1-566-822-21	JACK			
J121	1-793-994-21	CONNECTOR, USB			
J122	1-779-677-11	CONNECTOR, USB (B)			

QA

Ref.No.	Part No.	Description			Remark
	<COIL>				
L101	1-500-451-11	FERRITE	0μH		
L102	1-412-363-21	FERRITE	0μH		
L103	1-412-363-21	FERRITE	0μH		
L104	1-412-363-21	FERRITE	0μH		
L105	1-412-363-21	FERRITE	0μH		
L106	1-412-363-21	FERRITE	0μH		
L107	1-412-363-21	FERRITE	0μH		
L108	1-409-529-41	INDUCTOR	10μH		
L109	1-414-753-91	INDUCTOR	4.7μH		
L131	1-216-295-91	SHORT	0		
	<TRANSISTOR>				
Q102	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q103	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q104	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q105	1-801-806-11	TRANSISTOR DTC144EKA 0			
Q106	1-801-806-11	TRANSISTOR DTC144EKA 0			
Q107	8-729-216-22	TRANSISTOR 2SA1162-G			
	<RESISTOR>				
R100	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R101	1-216-025-91	RES,CHIP	100	5%	1/10W
R102	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R103	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R104	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R105	1-216-113-00	RES,CHIP	470K	5%	1/10W
R106	1-216-113-00	RES,CHIP	470K	5%	1/10W
R107	1-216-295-91	SHORT	0		
R108	1-216-049-91	RES,CHIP	1K	5%	1/10W
R109	1-216-049-91	RES,CHIP	1K	5%	1/10W
R110	1-216-049-91	RES,CHIP	1K	5%	1/10W
R111	1-216-081-00	RES,CHIP	22K	5%	1/10W
R112	1-216-081-00	RES,CHIP	22K	5%	1/10W
R113	1-216-081-00	RES,CHIP	22K	5%	1/10W
R114	1-216-081-00	RES,CHIP	22K	5%	1/10W
R115	1-216-081-00	RES,CHIP	22K	5%	1/10W
R116	1-216-081-00	RES,CHIP	22K	5%	1/10W
R117	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R118	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R119	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R120	1-216-091-00	RES,CHIP	56K	5%	1/10W
R121	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R122	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R123	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R124	1-216-077-91	RES,CHIP	15K	5%	1/10W
R125	1-216-077-91	RES,CHIP	15K	5%	1/10W
R127	1-216-121-91	RES,CHIP	1M	5%	1/10W
R128	1-216-025-91	RES,CHIP	100	5%	1/10W
R129	1-216-049-91	RES,CHIP	1K	5%	1/10W
R130	1-216-017-91	RES,CHIP	47	5%	1/10W
R131	1-216-017-91	RES,CHIP	47	5%	1/10W
R133	1-216-091-00	RES,CHIP	56K	5%	1/10W
R134	1-216-091-00	RES,CHIP	56K	5%	1/10W
R135	1-216-073-00	RES,CHIP	10K	5%	1/10W
R136	1-216-073-00	RES,CHIP	10K	5%	1/10W
R137	1-216-025-91	RES,CHIP	100	5%	1/10W
R138	1-216-089-91	RES,CHIP	47K	5%	1/10W
R139	1-216-025-91	RES,CHIP	100	5%	1/10W
R140	1-216-025-91	RES,CHIP	100	5%	1/10W
R141	1-216-089-91	RES,CHIP	47K	5%	1/10W
R142	1-216-114-00	RES,CHIP	510K	5%	1/10W
R143	1-216-073-00	RES,CHIP	10K	5%	1/10W
R144	1-216-025-91	RES,CHIP	100	5%	1/10W

Ref.No.	Part No.	Description			Remark
R145	1-216-114-00	RES,CHIP	510K	5%	1/10W
R146	1-216-073-00	RES,CHIP	10K	5%	1/10W
R147	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R148	1-216-077-91	RES,CHIP	15K	5%	1/10W
R149	1-216-077-91	RES,CHIP	15K	5%	1/10W
R150	1-216-295-91	SHORT	0		
R151	1-216-295-91	SHORT	0		
R152	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R153	1-216-121-91	RES,CHIP	1M	5%	1/10W
R154	1-216-085-00	RES,CHIP	33K	5%	1/10W
R155	1-216-073-00	RES,CHIP	10K	5%	1/10W
R156	1-216-025-91	RES,CHIP	100	5%	1/10W
R157	1-216-025-91	RES,CHIP	100	5%	1/10W
R158	1-216-025-91	RES,CHIP	100	5%	1/10W
R159	1-216-025-91	RES,CHIP	100	5%	1/10W
R160	1-216-025-91	RES,CHIP	100	5%	1/10W
R161	1-216-049-91	RES,CHIP	1K	5%	1/10W
R162	1-216-097-91	RES,CHIP	100K	5%	1/10W
R163	1-216-097-91	RES,CHIP	100K	5%	1/10W
R164	1-216-085-00	RES,CHIP	33K	5%	1/10W
R165	1-216-089-91	RES,CHIP	47K	5%	1/10W
R166	1-216-091-00	RES,CHIP	56K	5%	1/10W
R167	1-216-083-00	RES,CHIP	27K	5%	1/10W
R168	1-216-073-00	RES,CHIP	10K	5%	1/10W
R170	1-216-005-00	RES,CHIP	15	5%	1/10W
R171	1-216-005-00	RES,CHIP	15	5%	1/10W
R172	1-216-005-00	RES,CHIP	15	5%	1/10W
R173	1-216-005-00	RES,CHIP	15	5%	1/10W
R174	1-216-005-00	RES,CHIP	15	5%	1/10W
R175	1-216-005-00	RES,CHIP	15	5%	1/10W
R176	1-216-005-00	RES,CHIP	15	5%	1/10W
R177	1-216-005-00	RES,CHIP	15	5%	1/10W
R178	1-216-005-00	RES,CHIP	15	5%	1/10W
R179	1-216-005-00	RES,CHIP	15	5%	1/10W
R180	1-216-005-00	RES,CHIP	15	5%	1/10W
R181	1-216-005-00	RES,CHIP	15	5%	1/10W
R182	1-216-077-91	RES,CHIP	15K	5%	1/10W
R183	1-216-077-91	RES,CHIP	15K	5%	1/10W
R184	1-216-060-00	RES,CHIP	3K	5%	1/10W
R185	1-216-060-00	RES,CHIP	3K	5%	1/10W
R186	1-216-097-91	RES,CHIP	100K	5%	1/10W
R187	1-216-097-91	RES,CHIP	100K	5%	1/10W
R189	1-216-295-91	SHORT	0		
R192	1-216-073-00	RES,CHIP	10K	5%	1/10W
R193	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R194	1-216-025-91	RES,CHIP	100	5%	1/10W
R195	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R197	1-216-073-00	RES,CHIP	10K	5%	1/10W
R198	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R199	1-216-073-00	RES,CHIP	10K	5%	1/10W
	<SWITCH>				
S101	1-762-984-11	SWITCH, PUSH (LAMP COVER)			
S202	1-771-897-11	SWITCH, MICRO (FILTER COVER)			
	<CRYSTAL>				
X101	1-781-163-11	VIBRATOR, OSCILLATOR (24MHz)			
X102	1-767-340-11	VIBRATOR, CRYSTAL (4MHz)			
X103	1-781-163-11	VIBRATOR, OSCILLATOR (24MHz)			

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Ref.No.	Part No.	Description			Remark
	* A-1316-492-A	GA COMPL			
		**********			
	1-533-223-11	HOLDER, FUSE (F601)			
	1-900-251-41	CONNECTOR ASSY 3P			
	* 4-074-436-01	INSULATION PLATE (B)			
	* 4-074-437-01	INSULATION PLATE (A)			
	* 4-374-846-01	COVER, CAPACITOR,CAP TYPE			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	<CAPACITOR>				
C601	⚠1-113-907-51	CERAMIC	0.0022μF	20%	250V
C602	⚠1-115-166-11	FILM	0.22μF	20%	275V
C603	⚠1-113-907-51	CERAMIC	0.0022μF	20%	250V
C604	1-135-449-11	ELECT	220μF	20%	450V
C608	1-107-906-11	ELECT	10μF	20%	50V
C609	1-107-792-11	CERAMIC	100PF	5%	1KV
C610	1-129-720-00	FILM	0.033μF	5%	630V
C611	1-115-785-91	ELECT	470μF	20%	25V
C612	1-107-889-11	ELECT	220μF	20%	25V
C615	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C617	1-107-888-11	ELECT	47μF	20%	25V
C618	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C619	1-130-202-00	FILM	0.022μF	5%	400V
C620	1-115-742-11	ELECT	0.0027F	20%	10V
C621	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C623	1-107-909-11	ELECT	47μF	20%	16V
C624	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C625	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C626	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C627	1-164-492-11	CERAMIC CHIP	0.15μF	10%	16V
C628	1-165-319-11	CERAMIC CHIP	0.1μF		50V
C629	1-107-888-11	ELECT	47μF	20%	25V
C631	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C632	1-164-492-11	CERAMIC CHIP	0.15μF	10%	16V
C633	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C634	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C635	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C636	1-126-795-11	ELECT	10μF	20%	50V
C637	⚠1-113-511-11	FILM	0.47μF	20%	275V
C638	1-117-228-11	MYLAR	2.2μF	10%	450V
C671	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C672	1-126-795-11	ELECT	10μF	20%	50V
C673	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C674	1-126-786-11	ELECT	47μF	20%	16V
	<CONNECTOR>				
CN601	* 1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN604	* 1-794-043-11	CONNECTOR,BOARD TO BOARD 6P			
CN605	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN606	* 1-774-249-11	CONNECTOR, BOARD TO BOARD 10P			
	<DIODE>				
D601	⚠8-719-066-75	DIODE D6SB80			
D602	8-719-060-06	DIODE FSF10A60			
D603	8-719-055-30	DIODE D1FS4A-TA			
D604	8-719-055-30	DIODE D1FS4A-TA			
D605	8-719-066-76	DIODE TF861S			
D606	8-719-110-53	DIODE RD20ESB2			
D607	8-719-059-23	DIODE P6KE200AG23			
D608	8-719-961-04	DIODE RGP10J			
D609	8-719-510-41	DIODE D10SC9M			
D610	8-719-300-33	DIODE RU-3AM			
D611	8-719-071-97	DIODE P6KE350AG23			
D612	8-719-106-31	DIODE RD8.2M-T1B1			
D613	8-719-071-97	DIODE P6KE350AG23			
D614	8-719-073-37	DIODE P6KE300AG23			
D615	8-719-053-50	DIODE FCQ20A06			
D616	8-719-051-96	DIODE FMG-G2CS			
D617	8-719-053-50	DIODE FCQ20A06			
D618	8-719-071-97	DIODE P6KE350AG23			
D619	8-719-106-31	DIODE RD8.2M-T1B1			
D620	8-719-071-97	DIODE P6KE350AG23			
D621	8-719-055-33	DIODE D1FL40			
D622	8-719-107-43	DIODE RD24M-B2			
	<FUSE>				
F601	⚠1-576-233-11	FUSE (H.B.C.) (6.3A/250V)			
	<IC>				
IC602	8-759-388-23	IC TL431BCDR2			
IC603	8-759-487-72	IC TOP222Y-BB			
IC604	8-759-470-64	IC TOP223Y-BB			
IC605	8-759-583-06	IC FA5331M-TE1			
IC671	8-759-388-23	IC TL431BCDR2			
IC672	8-759-460-74	IC BA05FP-E2			
	<COIL>				
L601	⚠1-431-419-11	TRANSFORMER,LINE FILTER			
L602	1-416-754-21	INDUCTOR	0μH		
L603	1-406-976-11	INDUCTOR	68μH		
L604	1-413-090-00	INDUCTOR	110μH		
	<PHOTO COUPLER>				
PH601	8-749-010-64	PHOTO COUPLER			PC123F2
PH602	8-749-010-64	PHOTO COUPLER			PC123F2
PH603	8-749-010-64	PHOTO COUPLER			PC123F2
	<IC LINK>				
PS601	⚠1-576-124-11	LINK, IC (2A)			
	<TRANSISTOR>				
Q601	8-729-043-15	TRANSISTOR 2SK3013F-2			
Q602	8-729-922-39	TRANSISTOR 2SD2144S-V			
Q603	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q604	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q671	8-729-230-49	TRANSISTOR 2SC2712-YG			
	<RESISTOR>				
R601	⚠1-202-847-00	SOLID	560K	20%	1/2W
R602	1-216-003-11	RES,CHIP	12	5%	1/10W
R603	1-216-077-91	RES,CHIP	15K	5%	1/10W
R604	1-219-363-11	FUSIBLE	5.6	5%	5W F
R605	1-217-156-00	REGISTER	0.22	10%	5W F
R606	1-260-324-11	CARBON	470	5%	1/2W
R607	1-216-097-91	RES,CHIP	100K	5%	1/10W
R608	1-249-429-11	CARBON	10K	5%	1/4W F
R609	1-249-389-11	CARBON	4.7	5%	1/4W F
R610	1-215-903-11	METAL OXIDE	68K	5%	2W F
R611	1-220-270-11	RES,CHIP	390	5%	1/2W
R613	1-249-389-11	CARBON	4.7	5%	1/4W F
R615	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R617	1-220-337-11	RES,CHIP	270K	5%	1/2W

GA GBA GBB

Ref.No.	Part No.	Description			Remark
R618	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R620	1-216-033-00	RES,CHIP	220	5%	1/10W
R621	1-216-311-00	RES,CHIP	6.8	5%	1/10W
R622	1-220-267-11	RES,CHIP	180	5%	1/2W
R623	1-216-049-91	RES,CHIP	1K	5%	1/10W
R625	1-220-337-11	RES,CHIP	270K	5%	1/2W
R626	1-216-075-00	RES,CHIP	12K	5%	1/10W
R627	1-216-025-91	RES,CHIP	100	5%	1/10W
R628	1-216-689-11	RES,CHIP	39K	5%	1/10W
R629	1-215-927-00	METAL OXIDE	47K	5%	3W F
R630	1-215-927-00	METAL OXIDE	47K	5%	3W F
R631	1-216-311-00	RES,CHIP	6.8	5%	1/10W
R632	1-216-049-91	RES,CHIP	1K	5%	1/10W
R633	1-216-033-00	RES,CHIP	220	5%	1/10W
R634	1-216-629-11	METAL CHIP	120	0.50%	1/10W
R635	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R636	1-216-085-00	RES,CHIP	33K	5%	1/10W
R637	1-216-101-00	RES,CHIP	150K	5%	1/10W
R638	1-216-073-00	RES,CHIP	10K	5%	1/10W
R639	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R640	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R641	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R642	1-220-335-11	RES,CHIP	180K	5%	1/2W
R643	1-220-337-11	RES,CHIP	270K	5%	1/2W
R644	1-220-336-11	RES,CHIP	220K	5%	1/2W
R645	1-220-337-11	RES,CHIP	270K	5%	1/2W
R646	1-220-335-11	RES,CHIP	180K	5%	1/2W
R647	1-220-335-11	RES,CHIP	180K	5%	1/2W
R648	1-216-075-00	RES,CHIP	12K	5%	1/10W
R649	1-216-025-91	RES,CHIP	100	5%	1/10W
R650	1-216-005-00	RES,CHIP	15	5%	1/10W
R651	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R652	1-216-689-11	RES,CHIP	39K	5%	1/10W
R653	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R654	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R671	1-216-603-11	METAL CHIP	10	0.50%	1/10W
R672	1-216-077-91	RES,CHIP	15K	5%	1/10W
R673	1-220-270-11	RES,CHIP	390	5%	1/2W
R674	1-220-267-11	RES,CHIP	180	5%	1/2W
R675	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R676	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R677	1-216-085-00	RES,CHIP	33K	5%	1/10W
R678	1-216-093-91	RES,CHIP	68K	5%	1/10W
R679	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W

<TRANSFORMER>

T601	⚠1-435-199-11	TRANSFORMER,CONVERTER (SRT)	
T602	⚠1-435-198-11	TRANSFORMER,CONVERTER (PIT)	

<VARISTOR>

VD602	⚠1-801-073-41	VARISTOR ERZV14D471	
VD604	1-803-136-11	VARISTOR ZP260	

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	* A-1316-492-A	GBA COMPL
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	1-533-223-11	HOLDER, FUSE (F601)
	* 4-074-436-01	INSULATION PLATE (B)
	* 4-074-437-01	INSULATION PLATE (A)
	* 4-374-846-01	COVER, CAPACITOR,CAP TYPE
	4-382-854-01	SCREW (M3X8), P, SW (+)

Ref.No.	Part No.	Description			Remark
	<CAPACITOR>				
C676	1-126-382-11	ELECT	100µF	20%	16V
C677	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C678	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C679	1-126-796-11	ELECT	22µF	20%	35V
C680	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C681	1-115-784-11	ELECT	270µF	20%	25V
C682	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C683	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C684	1-124-589-11	ELECT	47µF	20%	16V
C718	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C719	1-126-789-11	ELECT	33µF	20%	25V
	<CONNECTOR>				
CN671	1-794-042-11	CONNECTOR, BOARD TO BOARD			
CN674	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN675	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN676	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
	<DIODE>				
D672	8-719-914-43	DIODE DAN202K			
D673	8-719-055-30	DIODE D1FS4A-TA			
D674	8-719-055-30	DIODE D1FS4A-TA			
D675	8-719-055-30	DIODE D1FS4A-TA			
	<IC>				
IC673	8-759-650-39	IC LT1374IS8			
IC704	8-759-388-31	IC PQ20VZ1U			
	<COIL>				
L671	1-406-659-11	INDUCTOR	10µH		
	<TRANSISTOR>				
Q672	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q673	8-729-230-49	TRANSISTOR 2SC2712-YG			
	<RESISTOR>				
R680	1-216-049-91	RES,CHIP	1K	5%	1/10W
R681	1-216-025-91	RES,CHIP	100	5%	1/10W
R682	1-216-073-00	RES,CHIP	10K	5%	1/10W
R683	1-216-025-91	RES,CHIP	100	5%	1/10W
R686	1-216-089-91	RES,CHIP	47K	5%	1/10W
R687	1-216-075-00	RES,CHIP	12K	5%	1/10W
R688	1-216-073-00	RES,CHIP	10K	5%	1/10W
R689	1-216-081-00	RES,CHIP	22K	5%	1/10W
R694	1-216-081-00	RES,CHIP	22K	5%	1/10W
R696	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R697	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R698	1-216-681-91	METAL CHIP	18K	0.50%	1/10W
R699	1-216-695-11	METAL CHIP	68K	0.50%	1/10W
R700	1-216-295-91	SHORT	0		
R701	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R716	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R717	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R718	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R719	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R720	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R721	1-216-675-91	METAL CHIP	10K	0.50%	1/10W

Ref.No.	Part No.	Description			Remark
**********					
	* A-1316-492-A	GBB COMPL			
		**********			
	1-533-223-11	HOLDER, FUSE (F601)			
	* 4-074-436-01	INSULATION PLATE (B)			
	* 4-074-437-01	INSULATION PLATE (A)			
	* 4-374-846-01	COVER, CAPACITOR,CAP TYPE			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	<CAPACITOR>				
C701	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C702	1-126-789-11	ELECT	33µF	20%	25V
C740	1-117-354-91	ELECT	330µF	20%	35V
C742	1-117-316-91	ELECT	470µF	20%	25V
C776	1-126-786-11	ELECT	47µF	20%	16V
C777	1-124-589-11	ELECT	47µF	20%	16V
C778	1-128-526-11	ELECT	100µF	20%	16V
	<CONNECTOR>				
CN702	* 1-774-246-11	CONNECTOR, BOARD TO BOARD 10P			
CN706	* 1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN707	* 1-564-711-11	PIN, CONNECTOR (SMALL TYPE) 9P			
	<DIODE>				
D715	8-719-510-41	DIODE D10SC9M			
D727	8-719-073-52	DIODE D2FS6-TA			
D728	8-719-073-52	DIODE D2FS6-TA			
D736	8-719-110-36	DIODE RD13ESB2			
	<IC>				
IC701	8-759-388-31	IC PQ20VZ1U			
	<COIL>				
L702	1-406-977-61	INDUCTOR	100µH		
L703	1-416-208-11	INDUCTOR	150µH		
L707	1-412-525-31	INDUCTOR	10µH		
	<TRANSISTOR>				
Q710	8-729-807-51	TRANSISTOR 2SD1623-S			
	<RESISTOR>				
R706	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R707	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R781	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R782	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R784	1-218-235-11	RES,CHIP	82	5%	1/2W
R785	1-220-274-11	RES,CHIP	1.2K	5%	1/2W
R787	1-220-274-11	RES,CHIP	1.2K	5%	1/2W
R788	1-220-274-11	RES,CHIP	1.2K	5%	1/2W
R789	1-220-274-11	RES,CHIP	1.2K	5%	1/2W
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Ref.No.	Part No.	Description			Remark
	* A-1335-123-A	C COMPL			
		**********			
	<CAPACITOR>				
C801	1-135-346-21	TANTALUM	39µF	20%	16V
C802	1-128-400-11	ELECT CHIP	47µF	20%	25V
C803	1-128-400-11	ELECT CHIP	47µF	20%	25V
C804	1-117-681-11	ELECT CHIP	100µF	20%	16V
C805	1-128-400-11	ELECT CHIP	47µF	20%	25V
C807	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C808	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C812	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C813	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C814	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C816	1-124-779-00	ELECT CHIP	10µF	20%	16V
C817	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C818	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C819	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C820	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C822	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C824	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C825	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C826	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C827	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C828	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C829	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C830	1-126-391-11	ELECT CHIP	47µF	20%	6.3V
C831	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C832	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C833	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C834	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C836	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C838	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C840	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C841	1-124-779-00	ELECT CHIP	10µF	20%	16V
C842	1-124-779-00	ELECT CHIP	10µF	20%	16V
C843	1-124-779-00	ELECT CHIP	10µF	20%	16V
C845	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C846	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C850	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C851	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C852	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C853	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C854	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C855	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C856	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C857	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C858	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C859	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C860	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C861	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C862	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C863	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C864	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C865	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C867	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C868	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C869	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C870	1-128-400-11	ELECT CHIP	47µF	20%	25V
C871	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C873	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C874	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C877	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C878	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C879	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V

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Ref.No.	Part No.	Description			Remark
C880	1-128-400-11	ELECT CHIP	47µF	20%	25V
C881	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C882	1-117-681-11	ELECT CHIP	100µF	20%	16V
C883	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C886	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C887	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C888	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C890	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C891	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C892	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C893	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C894	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C895	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C896	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C897	1-128-400-11	ELECT CHIP	47µF	20%	25V
C898	1-128-400-11	ELECT CHIP	47µF	20%	25V
C899	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C900	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C902	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C904	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C905	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C906	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C907	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C909	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C911	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C912	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C913	1-128-400-11	ELECT CHIP	47µF	20%	25V
C914	1-117-681-11	ELECT CHIP	100µF	20%	16V
C915	1-128-400-11	ELECT CHIP	47µF	20%	25V
C916	1-117-681-11	ELECT CHIP	100µF	20%	16V
C917	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C918	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C919	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C920	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C923	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C925	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C926	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C927	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C928	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C931	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C932	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C933	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C934	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C935	1-104-915-11	TANTAL. CHIP	2.2µF	20%	20V
C936	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C937	1-128-394-11	ELECT CHIP	220µF	20%	10V
C938	1-124-779-00	ELECT CHIP	10µF	20%	16V
C939	1-113-985-11	TANTAL. CHIP	10µF	20%	20V
C940	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C941	1-128-394-11	ELECT CHIP	220µF	20%	10V
C942	1-126-396-11	ELECT CHIP	47µF	20%	16V
C943	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C944	1-104-915-11	TANTAL. CHIP	2.2µF	20%	20V
C945	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C946	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C947	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C948	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C949	1-117-681-11	ELECT CHIP	100µF	20%	16V
C950	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C951	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C952	1-113-985-11	TANTAL. CHIP	10µF	20%	20V
C953	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C954	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C955	1-124-779-00	ELECT CHIP	10µF	20%	16V
C958	1-117-370-11	CERAMIC CHIP	10µF		10V
C959	1-117-370-11	CERAMIC CHIP	10µF		10V
C960	1-117-370-11	CERAMIC CHIP	10µF		10V
C961	1-109-982-11	CERAMIC CHIP	1µF	10%	10V
C962	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C963	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C964	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C965	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C966	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C967	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C968	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C969	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C970	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C971	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

<CONNECTOR>

CN801	* 1-793-798-21	CONNECTOR, BOARD TO BOARD	
CN802	* 1-691-551-11	PIN, CONNECTOR (SMD)	8P
CN803	1-774-932-21	CONNECTOR, FFC/FPC (ZIF)	32P
CN804	* 1-580-789-21	PIN, CONNECTOR (SMD)	6P
CN805	* 1-580-055-21	PIN, CONNECTOR (SMD)	2P
CN806	* 1-580-056-21	PIN, CONNECTOR (SMD)	3P
CN807	1-569-775-11	PIN, CONNECTOR (SMD)	5P
CN808	* 1-764-007-11	PIN, CONNECTOR (SMD)	12P
CN809	* 1-569-775-21	PIN, CONNECTOR (SMD)	5P
CN810	* 1-691-551-11	PIN, CONNECTOR (SMD)	8P
CN811	1-766-479-21	CONNECTOR, FFC/FPC (ZIF)	24P
CN812	1-766-479-21	CONNECTOR, FFC/FPC (ZIF)	24P
CN813	1-766-479-21	CONNECTOR, FFC/FPC (ZIF)	24P
CN814	* 1-580-057-11	PIN, CONNECTOR (SMD)	4P

<DIODE>

D801	8-719-976-99	DIODE DTZ5.1B
D802	8-719-976-99	DIODE DTZ5.1B
D803	8-719-976-99	DIODE DTZ5.1B
D804	8-719-976-99	DIODE DTZ5.1B
D805	8-719-976-99	DIODE DTZ5.1B
D806	8-719-976-99	DIODE DTZ5.1B
D807	8-719-976-99	DIODE DTZ5.1B
D812	8-719-976-99	DIODE DTZ5.1B
D813	8-719-976-99	DIODE DTZ5.1B
D814	8-719-976-99	DIODE DTZ5.1B

<FERRITE BEAD>

FB801	1-414-234-22	INDUCTOR CHIP	0µH
FB802	1-414-234-22	INDUCTOR CHIP	0µH
FB803	1-414-234-22	INDUCTOR CHIP	0µH
FB804	1-414-234-22	INDUCTOR CHIP	0µH
FB805	1-414-234-22	INDUCTOR CHIP	0µH
FB806	1-414-234-22	INDUCTOR CHIP	0µH
FB807	1-414-234-22	INDUCTOR CHIP	0µH
FB808	1-414-234-22	INDUCTOR CHIP	0µH
FB809	1-414-950-21	FERRITE	0µH
FB810	1-414-950-21	FERRITE	0µH
FB811	1-414-234-22	INDUCTOR CHIP	0µH
FB812	1-414-234-22	INDUCTOR CHIP	0µH
FB813	1-414-234-22	INDUCTOR CHIP	0µH
FB814	1-414-234-22	INDUCTOR CHIP	0µH
FB815	1-414-234-22	INDUCTOR CHIP	0µH
FB816	1-414-234-22	INDUCTOR CHIP	0µH
FB817	1-414-234-22	INDUCTOR CHIP	0µH
FB818	1-414-234-22	INDUCTOR CHIP	0µH
FB819	1-414-234-22	INDUCTOR CHIP	0µH
FB820	1-414-234-22	INDUCTOR CHIP	0µH
FB821	1-414-234-22	INDUCTOR CHIP	0µH
FB822	1-414-234-22	INDUCTOR CHIP	0µH

Ref.No.	Part No.	Description	Remark
FB823	1-414-234-22	INDUCTOR CHIP	0µH
FB824	1-414-234-22	INDUCTOR CHIP	0µH
	<FILTER>		
FL801	1-239-899-21	FILTER, CHIP EMI	
FL802	1-234-011-11	FILTER, EMI	
FL803	1-234-011-11	FILTER, EMI	
FL804	1-234-011-11	FILTER, EMI	
	<IC>		
IC801	8-759-259-77	IC PQ20VZ5U	
IC802	8-759-460-81	IC BA12FP-E2	
IC803	8-759-584-86	IC M52749FP-TP	
IC804	8-759-523-81	IC TC74VHC08FT(EL)	
IC805	8-759-660-42	IC THC63LVDF84A-T	
IC806	8-759-645-13	IC ADV7123KST140	
IC807	8-719-985-01	DIODE LM385M-1.2	
IC808	8-759-491-46	IC TC74VHCT04AFT(EL)	
IC809	8-759-658-73	IC ISPLSI1016E-80LT44-SX1697	
IC810	8-759-491-46	IC TC74VHCT04AFT(EL)	
IC811	8-759-482-35	IC MC100ELT20DR2	
IC812	8-759-592-44	IC TC7SZ04FU(TE85R)	
IC813	8-759-064-36	IC MB88346BPFV	
IC814	8-759-544-55	IC MAX4066CEE#NAME?	
IC815	8-752-080-99	IC CXA2112R	
IC817	8-752-080-99	IC CXA2112R	
IC818	8-752-080-99	IC CXA2112R	
IC819	8-759-702-02	IC NJM062M	
IC820	8-752-091-06	IC CXA1846BN-T4	
IC821	8-759-702-02	IC NJM062M	
IC822	8-759-491-46	IC TC74VHCT04AFT(EL)	
	<COIL>		
L801	1-410-393-11	INDUCTOR CHIP	100µH
L802	1-410-381-11	INDUCTOR CHIP	10µH
L803	1-414-752-11	INDUCTOR	2.2µH
L804	1-414-752-11	INDUCTOR	2.2µH
L806	1-410-369-11	INDUCTOR CHIP	1µH
L807	1-410-369-11	INDUCTOR CHIP	1µH
L808	1-410-369-11	INDUCTOR CHIP	1µH
L809	1-410-369-11	INDUCTOR CHIP	1µH
L810	1-410-369-11	INDUCTOR CHIP	1µH
L811	1-410-369-11	INDUCTOR CHIP	1µH
L812	1-410-377-31	INDUCTOR CHIP	4.7µH
L813	1-414-752-11	INDUCTOR	2.2µH
L814	1-469-524-91	INDUCTOR	4.7µH
	<TRANSISTOR>		
Q801	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q802	8-729-216-22	TRANSISTOR 2SA1162-G	
Q803	8-729-216-22	TRANSISTOR 2SA1162-G	
Q804	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q805	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q806	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q807	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q808	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q809	8-729-013-28	TRANSISTOR HN1B01FU-TE85R	
Q810	8-729-216-22	TRANSISTOR 2SA1162-G	
Q811	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q812	1-801-806-11	TRANSISTOR DTC144EKA0	
Q813	1-801-806-11	TRANSISTOR DTC144EKA0	
Q814	8-729-112-65	TRANSISTOR 2SA1462-Y33	
Q815	8-729-112-65	TRANSISTOR 2SA1462-Y33	

Ref.No.	Part No.	Description			Remark
Q816	1-801-806-11	TRANSISTOR DTC144EKA0			
Q817	8-729-112-65	TRANSISTOR 2SA1462-Y33			
	<RESISTOR>				
R801	1-216-073-00	RES,CHIP	10K	5%	1/10W
R802	1-216-682-11	METAL CHIP	20K	0.50%	1/10W
R803	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R804	1-216-295-91	SHORT	0		
R805	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R806	1-216-644-11	METAL CHIP	510	0.50%	1/10W
R807	1-216-017-91	RES,CHIP	47	5%	1/10W
R809	1-216-295-91	SHORT	0		
R810	1-216-017-91	RES,CHIP	47	5%	1/10W
R811	1-216-017-91	RES,CHIP	47	5%	1/10W
R812	1-216-017-91	RES,CHIP	47	5%	1/10W
R813	1-216-017-91	RES,CHIP	47	5%	1/10W
R815	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R816	1-216-025-91	RES,CHIP	100	5%	1/10W
R817	1-216-049-91	RES,CHIP	1K	5%	1/10W
R820	1-216-025-91	RES,CHIP	100	5%	1/10W
R821	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R822	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R823	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R824	1-216-025-91	RES,CHIP	100	5%	1/10W
R825	1-216-025-91	RES,CHIP	100	5%	1/10W
R826	1-216-025-91	RES,CHIP	100	5%	1/10W
R827	1-216-025-91	RES,CHIP	100	5%	1/10W
R828	1-216-025-91	RES,CHIP	100	5%	1/10W
R829	1-216-089-91	RES,CHIP	47K	5%	1/10W
R830	1-216-009-91	RES,CHIP	22	5%	1/10W
R831	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R832	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R833	1-216-113-00	RES,CHIP	470K	5%	1/10W
R836	1-216-025-91	RES,CHIP	100	5%	1/10W
R837	1-216-049-91	RES,CHIP	1K	5%	1/10W
R838	1-216-295-91	SHORT	0		
R839	1-216-049-91	RES,CHIP	1K	5%	1/10W
R841	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R842	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R843	1-216-037-00	RES,CHIP	330	5%	1/10W
R844	1-216-037-00	RES,CHIP	330	5%	1/10W
R845	1-216-295-91	SHORT	0		
R846	1-216-037-00	RES,CHIP	330	5%	1/10W
R847	1-216-037-00	RES,CHIP	330	5%	1/10W
R848	1-216-649-11	METAL CHIP	820	0.50%	1/10W
R849	1-216-662-11	METAL CHIP	3K	0.50%	1/10W
R850	1-216-025-91	RES,CHIP	100	5%	1/10W
R851	1-216-025-91	RES,CHIP	100	5%	1/10W
R852	1-216-025-91	RES,CHIP	100	5%	1/10W
R853	1-216-295-91	SHORT	0		
R854	1-216-295-91	SHORT	0		
R855	1-216-017-91	RES,CHIP	47	5%	1/10W
R856	1-216-017-91	RES,CHIP	47	5%	1/10W
R857	1-216-017-91	RES,CHIP	47	5%	1/10W
R858	1-216-017-91	RES,CHIP	47	5%	1/10W
R859	1-216-049-91	RES,CHIP	1K	5%	1/10W
R860	1-216-017-91	RES,CHIP	47	5%	1/10W
R861	1-216-017-91	RES,CHIP	47	5%	1/10W
R862	1-216-017-91	RES,CHIP	47	5%	1/10W
R863	1-216-295-91	SHORT	0		
R864	1-216-049-91	RES,CHIP	1K	5%	1/10W
R865	1-216-295-91	SHORT	0		
R866	1-216-025-91	RES,CHIP	100	5%	1/10W
R867	1-216-017-91	RES,CHIP	47	5%	1/10W
R868	1-216-025-91	RES,CHIP	100	5%	1/10W

C

Ref.No.	Part No.	Description			Remark
R869	1-216-017-91	RES,CHIP	47	5%	1/10W
R870	1-216-025-91	RES,CHIP	100	5%	1/10W
R871	1-216-017-91	RES,CHIP	47	5%	1/10W
R872	1-216-295-91	SHORT	0		
R873	1-216-025-91	RES,CHIP	100	5%	1/10W
R874	1-216-295-91	SHORT	0		
R875	1-216-295-91	SHORT	0		
R876	1-216-009-91	RES,CHIP	22	5%	1/10W
R877	1-216-037-00	RES,CHIP	330	5%	1/10W
R878	1-216-037-00	RES,CHIP	330	5%	1/10W
R879	1-216-009-91	RES,CHIP	22	5%	1/10W
R880	1-216-073-00	RES,CHIP	10K	5%	1/10W
R881	1-216-295-91	SHORT	0		
R882	1-216-025-91	RES,CHIP	100	5%	1/10W
R883	1-216-295-91	SHORT	0		
R884	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R885	1-216-025-91	RES,CHIP	100	5%	1/10W
R887	1-216-077-91	RES,CHIP	15K	5%	1/10W
R889	1-216-025-91	RES,CHIP	100	5%	1/10W
R890	1-216-025-91	RES,CHIP	100	5%	1/10W
R891	1-216-025-91	RES,CHIP	100	5%	1/10W
R892	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R893	1-216-025-91	RES,CHIP	100	5%	1/10W
R894	1-216-025-91	RES,CHIP	100	5%	1/10W
R895	1-216-025-91	RES,CHIP	100	5%	1/10W
R896	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R900	1-216-295-91	SHORT	0		
R901	1-216-041-00	RES,CHIP	470	5%	1/10W
R902	1-216-025-91	RES,CHIP	100	5%	1/10W
R903	1-216-025-91	RES,CHIP	100	5%	1/10W
R904	1-216-025-91	RES,CHIP	100	5%	1/10W
R905	1-216-025-91	RES,CHIP	100	5%	1/10W
R906	1-216-295-91	SHORT	0		
R907	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R908	1-216-041-00	RES,CHIP	470	5%	1/10W
R909	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R910	1-216-295-91	SHORT	0		
R911	1-216-041-00	RES,CHIP	470	5%	1/10W
R912	1-216-041-00	RES,CHIP	470	5%	1/10W
R913	1-216-041-00	RES,CHIP	470	5%	1/10W
R914	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R915	1-216-295-91	SHORT	0		
R916	1-216-295-91	SHORT	0		
R917	1-216-001-00	RES,CHIP	10	5%	1/10W
R918	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R919	1-216-001-00	RES,CHIP	10	5%	1/10W
R920	1-216-025-91	RES,CHIP	100	5%	1/10W
R921	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R922	1-216-295-91	SHORT	0		
R923	1-216-001-00	RES,CHIP	10	5%	1/10W
R924	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R925	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R926	1-216-001-00	RES,CHIP	10	5%	1/10W
R927	1-216-073-00	RES,CHIP	10K	5%	1/10W
R929	1-216-001-00	RES,CHIP	10	5%	1/10W
R930	1-216-001-00	RES,CHIP	10	5%	1/10W
R931	1-216-295-91	SHORT	0		
R932	1-216-073-00	RES,CHIP	10K	5%	1/10W
R933	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R934	1-216-025-91	RES,CHIP	100	5%	1/10W
R935	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R936	1-216-295-91	SHORT	0		
R937	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R938	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R941	1-216-017-91	RES,CHIP	47	5%	1/10W
R942	1-216-017-91	RES,CHIP	47	5%	1/10W
R943	1-216-295-91	SHORT	0		
R944	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R945	1-216-025-91	RES,CHIP	100	5%	1/10W
R946	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R947	1-216-295-91	SHORT	0		
R948	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R949	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R950	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R951	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R952	1-216-295-91	SHORT	0		
R953	1-216-295-91	SHORT	0		
R954	1-216-001-00	RES,CHIP	10	5%	1/10W
R955	1-216-001-00	RES,CHIP	10	5%	1/10W
R956	1-216-001-00	RES,CHIP	10	5%	1/10W
R957	1-216-001-00	RES,CHIP	10	5%	1/10W
R958	1-216-001-00	RES,CHIP	10	5%	1/10W
R959	1-216-001-00	RES,CHIP	10	5%	1/10W
R960	1-216-001-00	RES,CHIP	10	5%	1/10W
R961	1-216-001-00	RES,CHIP	10	5%	1/10W
R962	1-216-001-00	RES,CHIP	10	5%	1/10W
R963	1-216-001-00	RES,CHIP	10	5%	1/10W
R964	1-216-073-00	RES,CHIP	10K	5%	1/10W
R965	1-216-073-00	RES,CHIP	10K	5%	1/10W
R966	1-216-001-00	RES,CHIP	10	5%	1/10W
R967	1-216-001-00	RES,CHIP	10	5%	1/10W
R968	1-216-073-00	RES,CHIP	10K	5%	1/10W
R969	1-216-073-00	RES,CHIP	10K	5%	1/10W
R970	1-216-295-91	SHORT	0		
R971	1-216-089-91	RES,CHIP	47K	5%	1/10W
R972	1-216-295-91	SHORT	0		
R973	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R975	1-216-295-91	SHORT	0		
R976	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R977	1-216-089-91	RES,CHIP	47K	5%	1/10W
R978	1-217-671-11	RES,CHIP	1	5%	1/10W
R979	1-217-671-11	RES,CHIP	1	5%	1/10W
R980	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R981	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R982	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R983	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R984	1-216-033-00	RES,CHIP	220	5%	1/10W
R985	1-216-033-00	RES,CHIP	220	5%	1/10W
R986	1-216-295-91	SHORT	0		
R988	1-216-295-91	SHORT	0		
R989	1-216-025-91	RES,CHIP	100	5%	1/10W
R990	1-216-025-91	RES,CHIP	100	5%	1/10W
R991	1-216-025-91	RES,CHIP	100	5%	1/10W
R992	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R993	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R994	1-216-097-91	RES,CHIP	100K	5%	1/10W
R995	1-216-073-00	RES,CHIP	10K	5%	1/10W
R996	1-216-649-11	METAL CHIP	820	0.50%	1/10W
R997	1-216-662-11	METAL CHIP	3K	0.50%	1/10W
R998	1-216-649-11	METAL CHIP	820	0.50%	1/10W
R999	1-216-662-11	METAL CHIP	3K	0.50%	1/10W
R1000	1-216-041-00	RES,CHIP	470	5%	1/10W
R1001	1-216-041-00	RES,CHIP	470	5%	1/10W
R1002	1-216-041-00	RES,CHIP	470	5%	1/10W
R1003	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1004	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1005	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1006	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1007	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1008	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1009	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1010	1-216-631-11	METAL CHIP	150	0.50%	1/10W

C H NF

Ref.No.	Part No.	Description			Remark
R1011	1-216-631-11	METAL CHIP	150	0.50%	1/10W
R1012	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1013	1-216-025-91	RES,CHIP	100	5%	1/10W
R1014	1-216-025-91	RES,CHIP	100	5%	1/10W
R1015	1-216-025-91	RES,CHIP	100	5%	1/10W
R1016	1-216-025-91	RES,CHIP	100	5%	1/10W
R1017	1-216-025-91	RES,CHIP	100	5%	1/10W
R1018	1-216-009-91	RES,CHIP	22	5%	1/10W
R1019	1-216-295-91	SHORT	0		
R1020	1-216-295-91	SHORT	0		
R1021	1-216-043-91	RES,CHIP	560	5%	1/10W
R1022	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
	<THERMISTOR>				
TH801	1-808-656-11	THERMISTOR			
TH802	1-808-656-11	THERMISTOR			
	<TEST PIN>				
TP801	1-535-757-11	CHIP, CHECKER			
TP802	1-535-757-11	CHIP, CHECKER			
TP803	1-535-757-11	CHIP, CHECKER			
TP804	1-535-757-11	CHIP, CHECKER			
TP805	1-535-757-11	CHIP, CHECKER			
TP806	1-535-757-11	CHIP, CHECKER			
TP807	1-535-757-11	CHIP, CHECKER			
TP808	1-535-757-11	CHIP, CHECKER			
TP809	1-535-757-11	CHIP, CHECKER			
TP810	1-535-757-11	CHIP, CHECKER			
TP811	1-535-757-11	CHIP, CHECKER			
TP812	1-535-757-11	CHIP, CHECKER			
TP813	1-535-757-11	CHIP, CHECKER			
TP814	1-535-757-11	CHIP, CHECKER			
TP815	1-535-757-11	CHIP, CHECKER			
TP816	1-535-757-11	CHIP, CHECKER			
TP817	1-535-757-11	CHIP, CHECKER			

****

* A-1375-195-A H COMPL
****

<CAPACITOR>

C001	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

<CONNECTOR>

CN001	* 1-764-007-11	PIN, CONNECTOR (SMD)	12P		

<DIODE>

D001	8-719-045-61	DIODE SEC1901C (LAMP-LED)
D002	8-719-045-61	DIODE SEC1901C (TEMP-LED)
D003	8-719-045-53	DIODE SEC1801C (POWER-SAVE)
D004	8-719-914-43	DIODE DAN202K
D005	8-719-914-43	DIODE DAN202K
D006	8-719-914-43	DIODE DAN202K
D007	8-719-914-43	DIODE DAN202K
D008	8-719-045-51	DIODE SEC2422C (POWER/STBY)
D009	8-719-914-44	DIODE DAP202K
D010	8-719-914-44	DIODE DAP202K
D011	8-719-914-44	DIODE DAP202K
D012	8-719-914-44	DIODE DAP202K

<TRANSISTOR>

Q001	8-729-027-38	TRANSISTOR DTA144EKA0

<RESISTOR>

R001	1-216-073-00	RES,CHIP	10K	5%	1/10W
R002	1-216-073-00	RES,CHIP	10K	5%	1/10W
R003	1-216-049-91	RES,CHIP	1K	5%	1/10W
R004	1-216-083-00	RES,CHIP	27K	5%	1/10W
R005	1-216-075-00	RES,CHIP	12K	5%	1/10W
R006	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R007	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R008	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R009	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R010	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R011	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R012	1-216-037-00	RES,CHIP	330	5%	1/10W
R013	1-216-059-00	RES,CHIP	2.7K	5%	1/10W
R014	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R015	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R016	1-216-055-00	RES,CHIP	1.8K	5%	1/10W

<SWITCH>

S001	1-771-105-11	SWITCH, TACTILE (LEFT)
S002	1-771-105-11	SWITCH, TACTILE (RIGHT)
S003	1-771-105-11	SWITCH, TACTILE (DOWN)
S004	1-771-105-11	SWITCH, TACTILE (UP)
S005	1-771-105-11	SWITCH, TACTILE (ENTER)
S006	1-771-105-11	SWITCH, TACTILE (MENU)
S007	1-771-105-11	SWITCH, TACTILE (INPUT)
S008	1-771-105-11	SWITCH, TACTILE (POWER)
S009	1-771-105-11	SWITCH, TACTILE (APA)
S010	1-771-105-11	SWITCH, TACTILE (VOL+)
S011	1-771-105-11	SWITCH, TACTILE (VOL–)
S012	1-771-105-11	SWITCH, TACTILE (RESET)

****

* A-1390-984-A NF MOUNT
****

<CAPACITOR>

C071	1-113-985-11	TANTAL. CHIP	10µF	20%	20V

<CONNECTOR>

CN071	* 1-580-056-21	PIN, CONNECTOR (SMD)	3P		

<IC>

IC071	8-749-012-17	IC RS-140-T

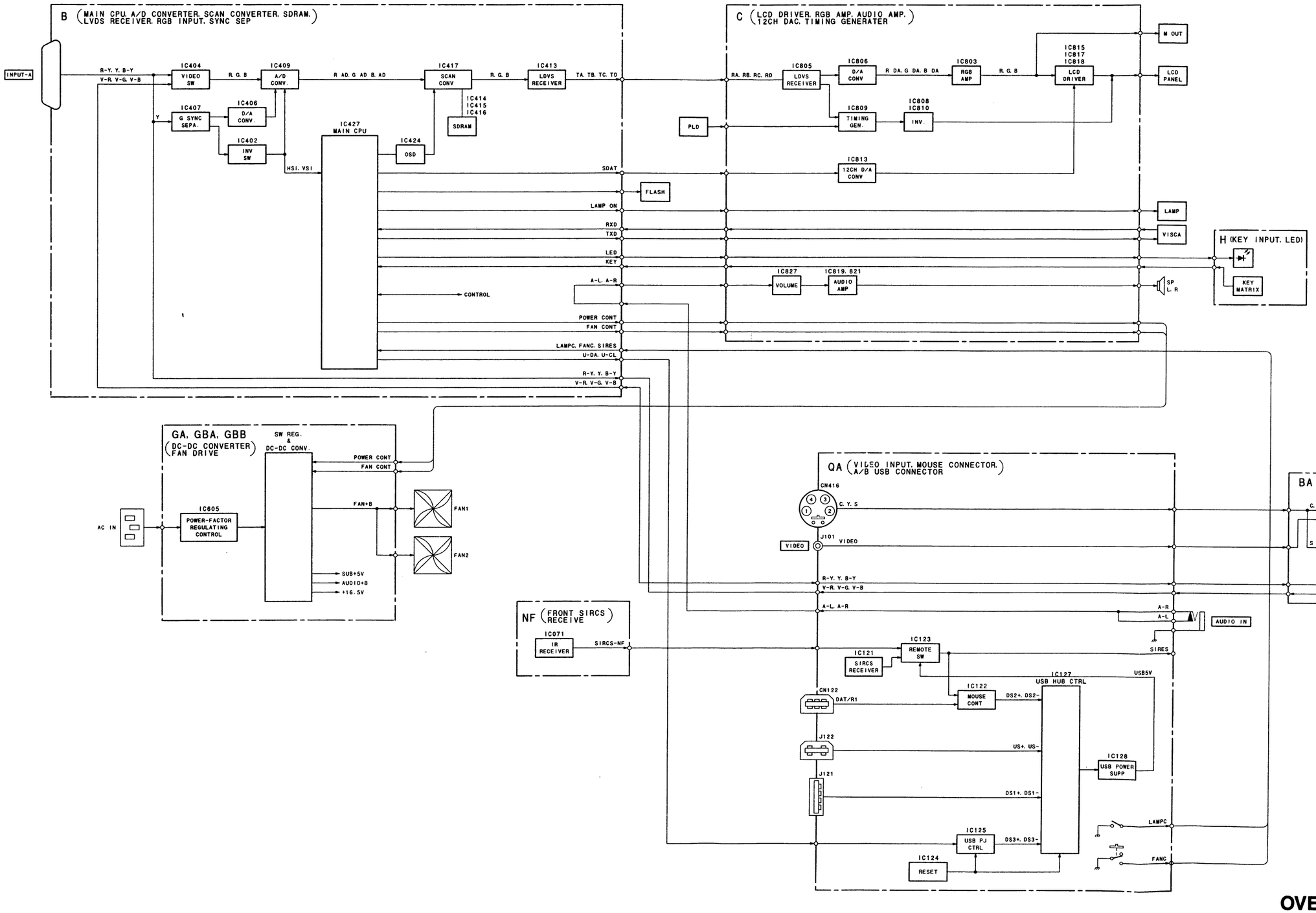
<RESISTOR>

R071	1-216-017-91	RES,CHIP	47	5%	1/10W
R072	1-216-025-91	RES,CHIP	100	5%	1/10W

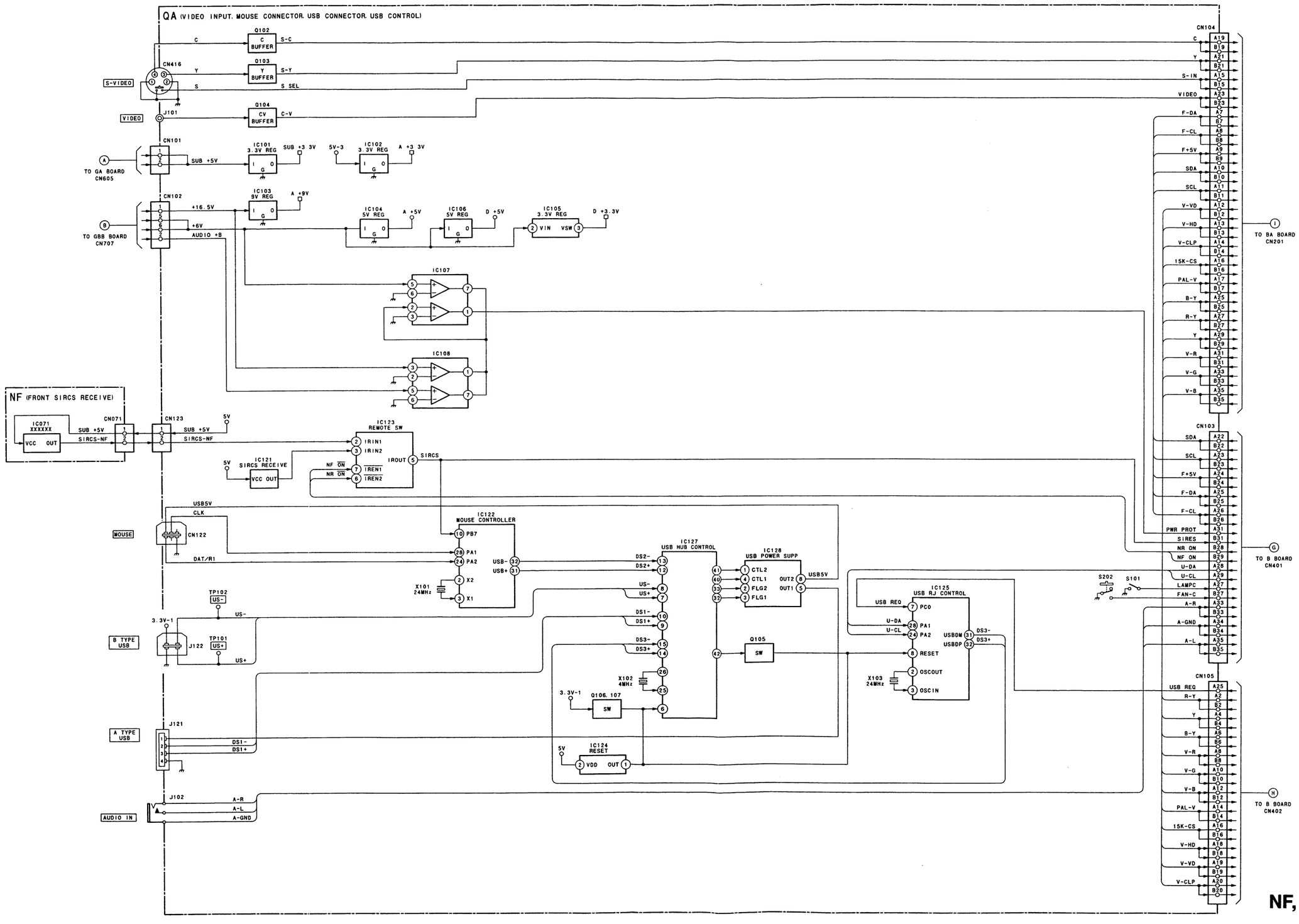
****

Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
	A-150-163-6A	OPTICS BLOCK ASSY	
⚠	1-251-382-12	INLET, AC 3P(WITH NOISE FILTE)	
	1-468-457-11	POWER, LAMP	
	1-500-082-11	CLAMP, SLEEVE FERRITE	
	1-500-657-11	CORE, FERRIET	
	1-529-544-11	SPEAKER (3.6CM)	
	1-763-172-11	FAN, DC	
	1-763-474-11	FAN	
	1-900-222-47	CONNECTOR ASSY 2P	
	1-900-251-42	CONNECTOR ASSY, MINI MICRO 4P	
		ACCESSORIES	
		**********	
⚠	1-534-827-14	CORD, POWER (7A/125V)	
⚠	1-777-649-11	CORD, POWER (10A/250V)	
⚠	1-782-929-11	CORD, POWER SUPPLY (BS 3P) (10A/250V)	
	1-418-804-11	REMOTE COMMANDER (RM-PJM1)	
	1-790-081-21	CABLE, USB	
	4-074-278-11	OPERATING, INSTRUCTIONS (ENGLISH/FRENCH/SPANISH)	
	4-074-278-21	OPERATING, INSTRUCTIONS (GERMAN/ITALIAN)	
	4-074-279-01	QUICK REFERENCE CARD (ENGLISH/ FRENCH/SPANISH/GERMAN/ITALIAN/ CHINESE)	
*	4-074-444-01	BAG, CARRY	
	4-074-717-01	FILTER	
	9-885-000-19	BATTERY COVER (FOR RM-PJM1)	

Section 7
Block Diagrams

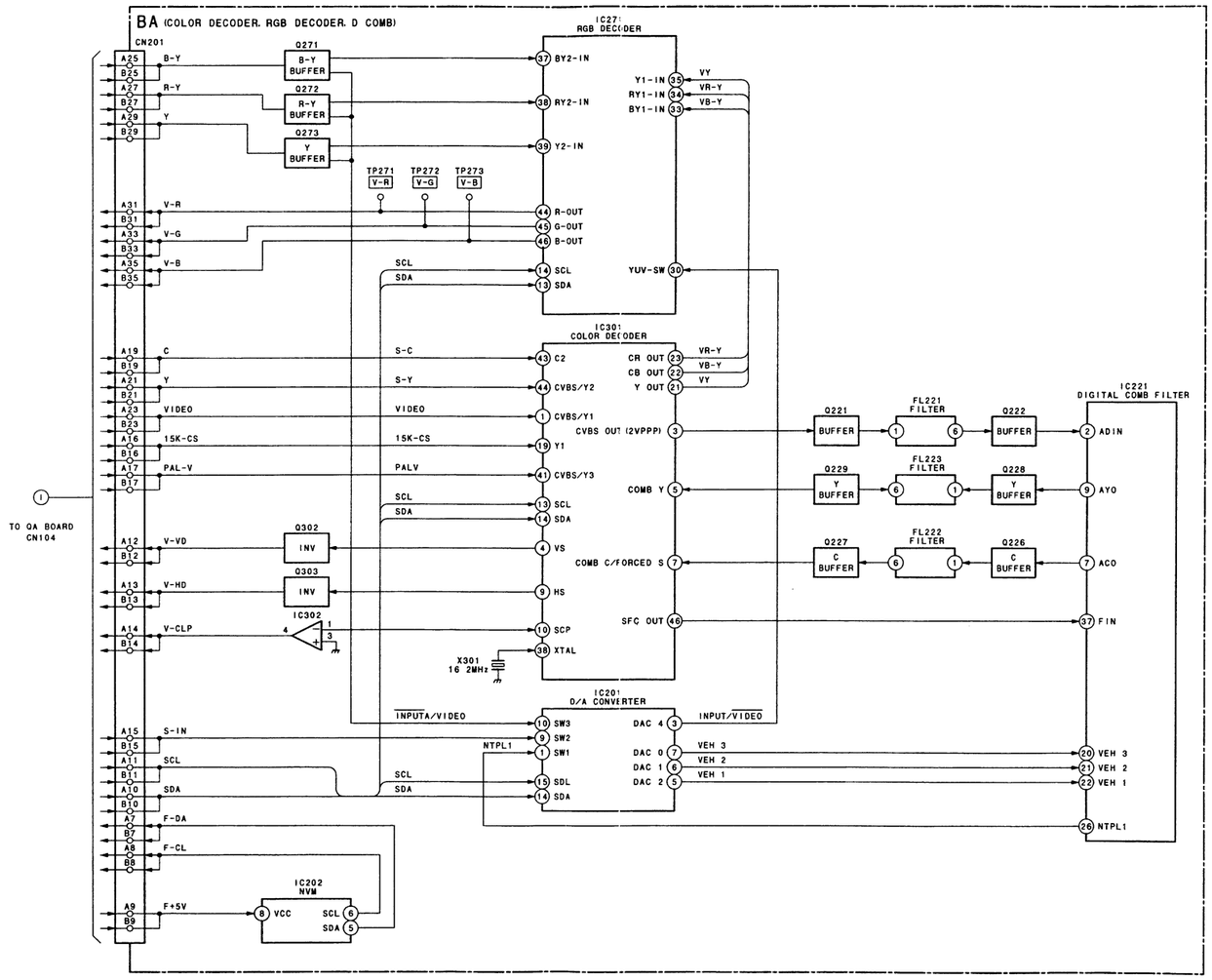


OVERALL BLOCK



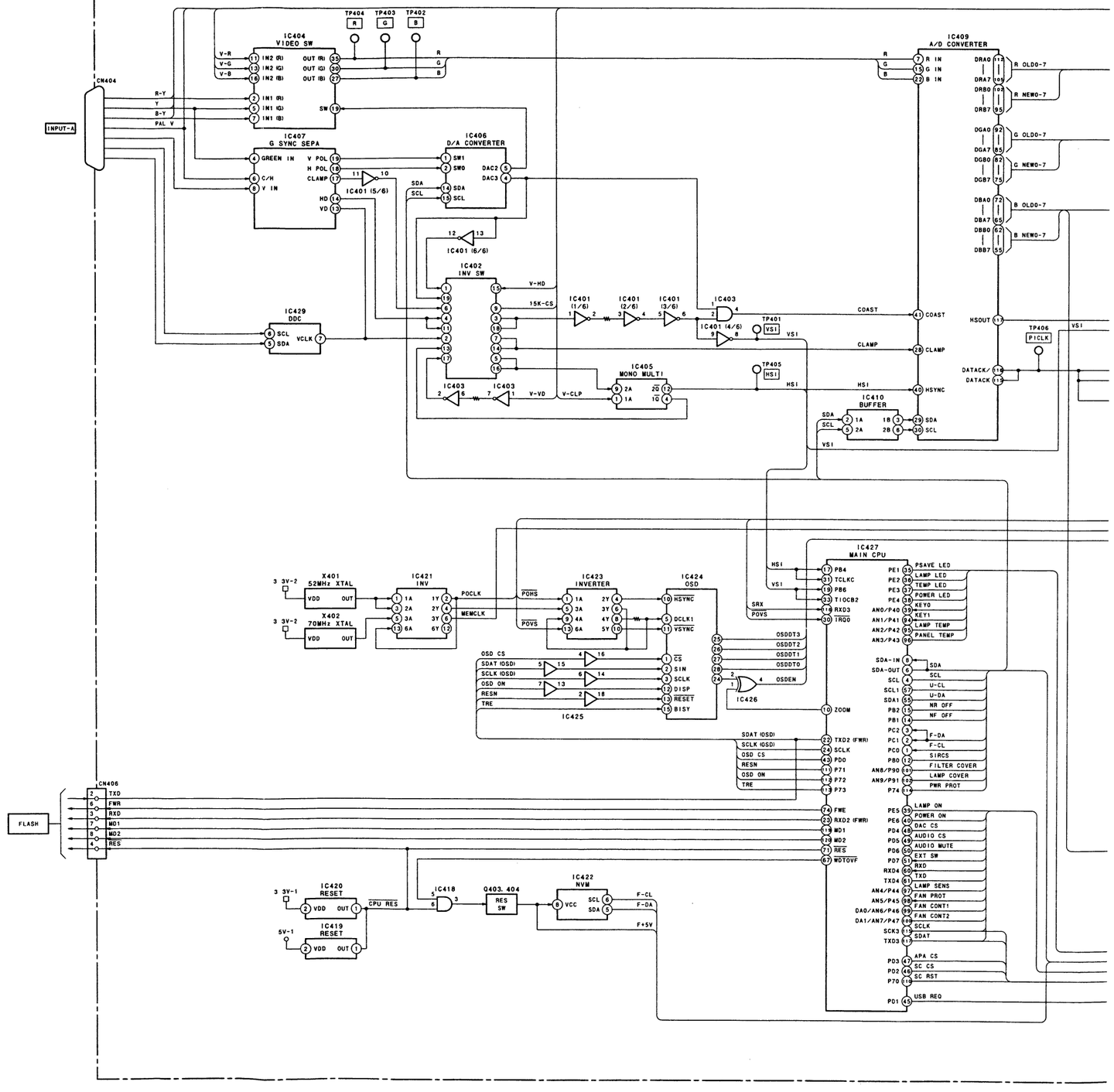
NF, QA BLOCK

VPL-CS1


BA (COLOR DECODER, RGB DECODER, D COMB)
CN201
IC27
RGB DECODER
Q271 B-Y BUFFER
Q272 R-Y BUFFER
Q273 Y BUFFER
TP271 V-R
TP272 V-G
TP273 V-B
IC301
COLOR DECODER
IC221
DIGITAL COMB FILTER
Q221 BUFFER
Q222 BUFFER
Q229 Y BUFFER
Q228 Y BUFFER
Q227 C BUFFER
Q226 C BUFFER
FL221 FILTER
FL223 FILTER
FL222 FILTER
Q302 INV
Q303 INV
IC302
X301 16.2MHz
IC201
D/A CONVERTER
IC202
NVM
TO QA BOARD CN104
B-Y
R-Y
Y
V-R
V-G
V-B
SCL
SDA
S-C
S-Y
VIDEO
15K-CS
PAL-V
V-VD
V-HD
V-CLP
S-IN
F-DA
F-CL
F+5V
BY2-IN
RY2-IN
Y2-IN
R-OUT
G-OUT
B-OUT
SW3
SW2
SW1
SDL
VCC
C2
CVBS/Y2
CVBS/Y1
Y1
CVBS/Y3
VS
HS
SCP
XTAL
Y1-IN
RY1-IN
BY1-IN
YUV-SW
CR OUT
CB OUT
Y OUT
CVBS OUT (2VPPP)
COMB Y
COMB C/FORCED S
SFC OUT
DAC 4
DAC 0
DAC 1
DAC 2
INPUTA/VIDEO
INPUT/VIDEO
NTPL1
ADIN
AYO
ACO
FIN
VEH 3
VEH 2
VEH 1
VY
VR-Y
VB-Y

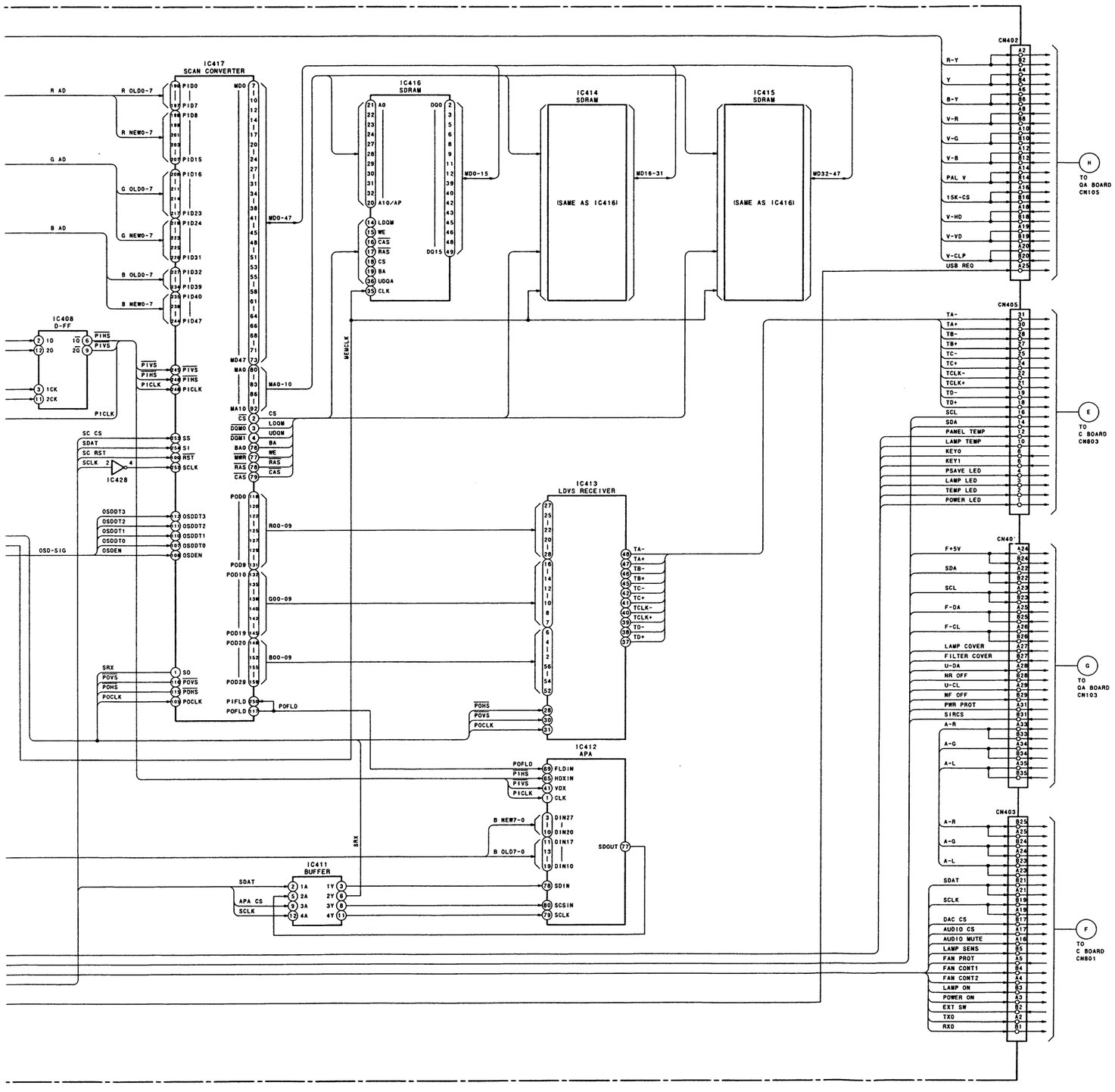
BA BLOCK

B (MAIN CPU, A/D CONVERTER, CSAN CONVERTER, SDRAM, LVDS RECEIVER, RGB INPUT, SYNC SEP)



7-4 7-4

VPL-CS1



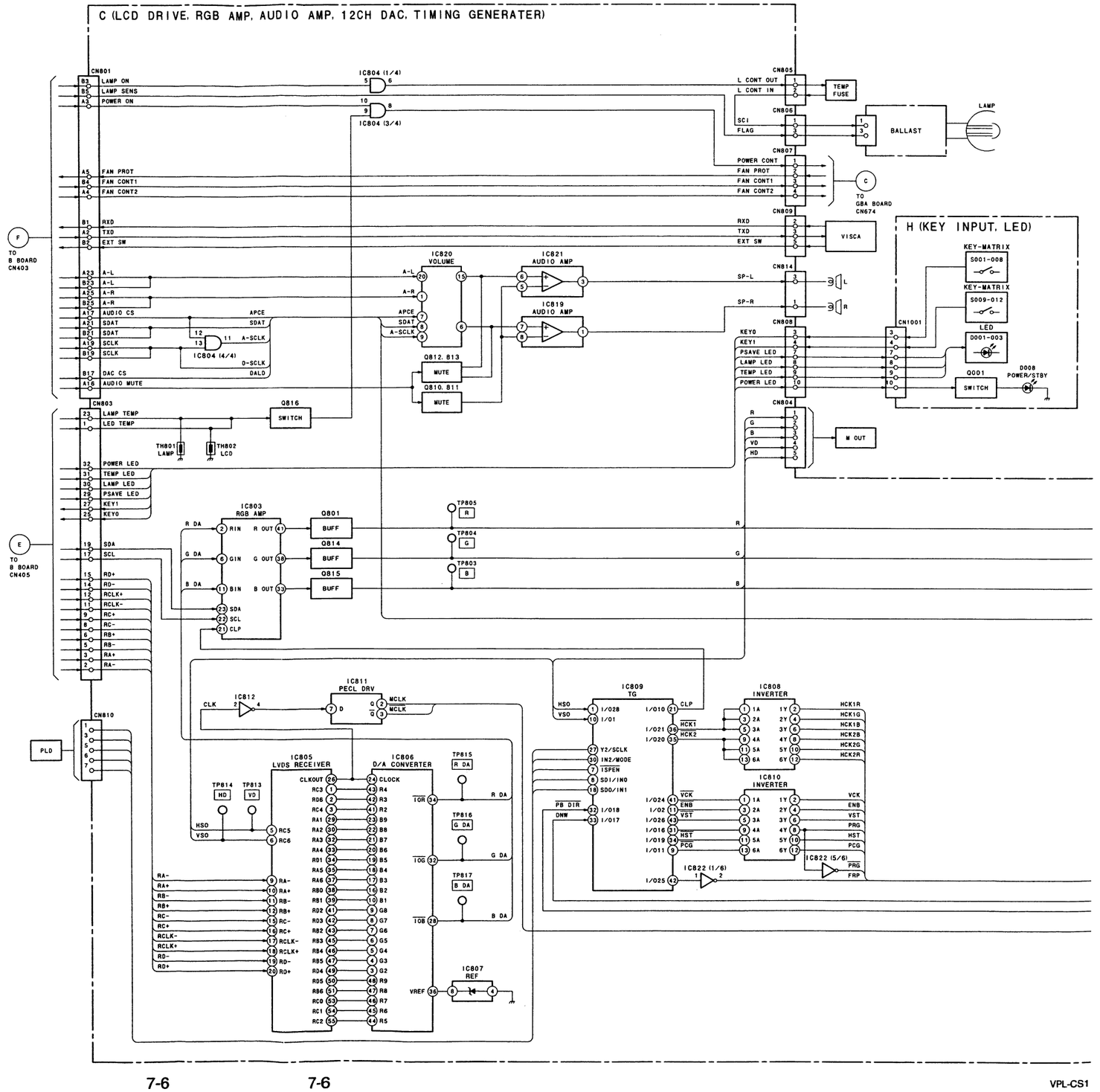
B BLOCK

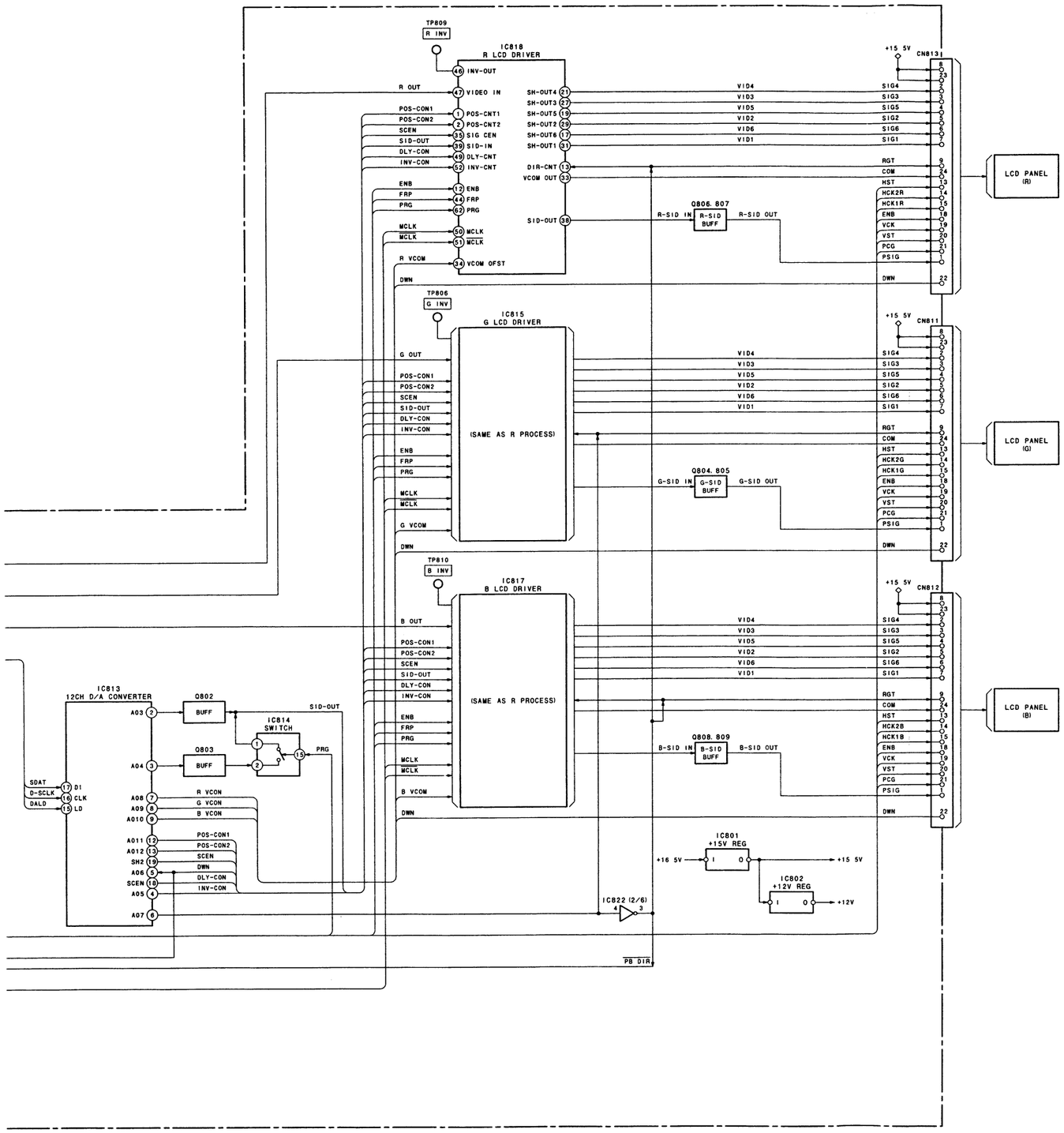
VPL-CS1

7-5 7-5

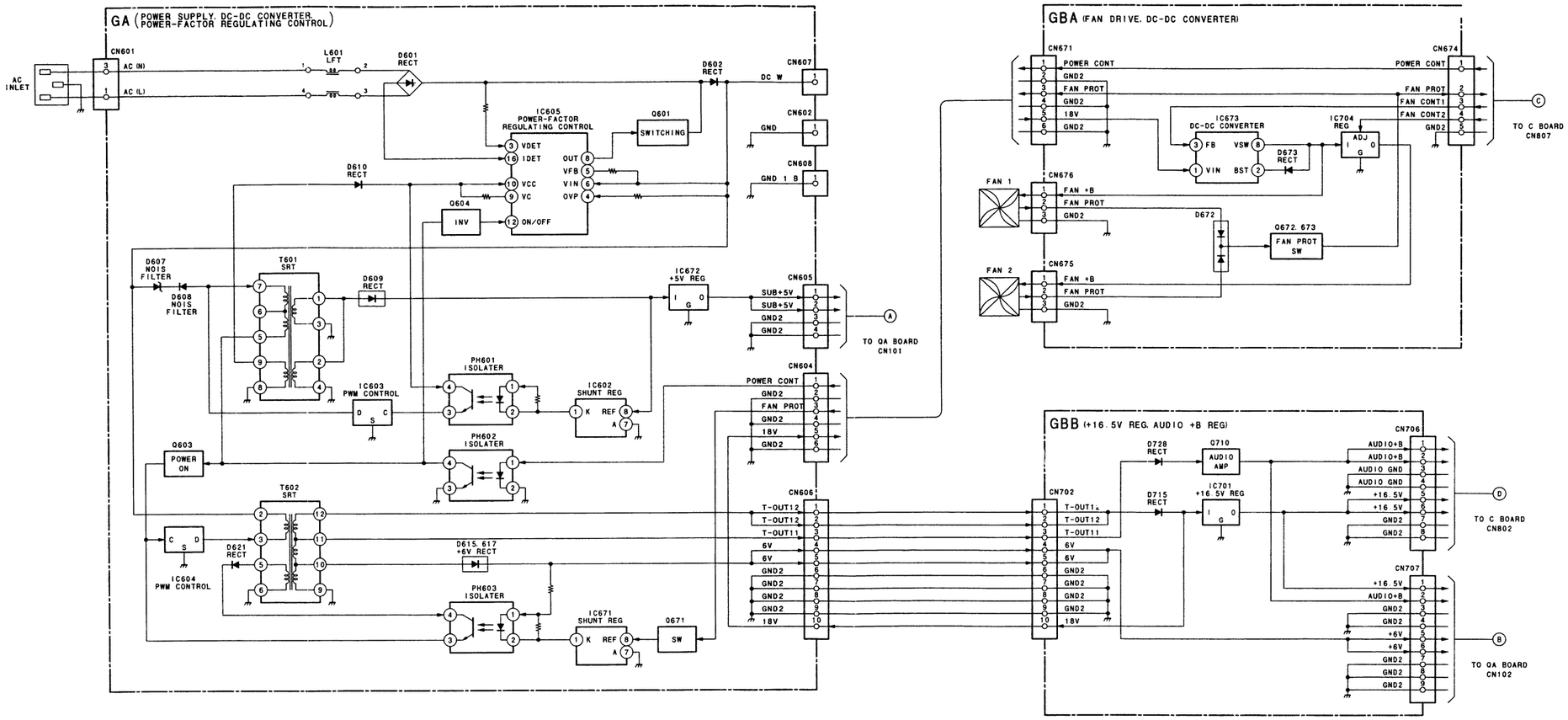
A | B | C | D | E | F | G | H

1 2 3 4 5


C (LCD DRIVE, RGB AMP, AUDIO AMP, 12CH DAC, TIMING GENERATER)
H (KEY INPUT, LED)
CN801
LAMP ON
LAMP SENS
POWER ON
FAN PROT
FAN CONT1
FAN CONT2
RXD
TXD
EXT SW
A-L
A-L
A-R
A-R
AUDIO CS
SDAT
SDAT
SCLK
SCLK
DAC CS
AUDIO MUTE
APCE
SDAT
A-SCLK
D-SCLK
DALD
IC804 (1/4)
IC804 (3/4)
IC804 (4/4)
IC820 VOLUME
IC821 AUDIO AMP
IC819 AUDIO AMP
Q812, 813 MUTE
Q810, 811 MUTE
CN803
LAMP TEMP
LED TEMP
Q816 SWITCH
TH801 LAMP
TH802 LCD
POWER LED
TEMP LED
LAMP LED
PSAVE LED
KEY1
KEY0
SDA
SCL
RD+
RD-
RCLK+
RCLK-
RC+
RC-
RB+
RB-
RA+
RA-
IC803 RGB AMP
R DA
G DA
B DA
R IN
G IN
B IN
R OUT
G OUT
B OUT
SDA
SCL
CLP
Q801 BUFF
Q814 BUFF
Q815 BUFF
TP805 R
TP804 G
TP803 B
CN810
PLD
IC811 PECL DRV
IC812
CLK
MCLK
MCLK
IC805 LVDS RECEIVER
IC806 D/A CONVERTER
IC807 REF
TP814 HD
TP813 VD
HSO
VSO
TP815 R DA
TP816 G DA
TP817 B DA
VREF
IC809 TG
IC808 INVERTER
IC810 INVERTER
IC822 (1/6)
IC822 (5/6)
CN805
L CONT OUT
L CONT IN
CN806
SCI
FLAG
CN807
POWER CONT
FAN PROT
FAN CONT1
FAN CONT2
CN809
RXD
TXD
EXT SW
CN814
SP-L
SP-R
CN808
KEY0
KEY1
PSAVE LED
LAMP LED
TEMP LED
POWER LED
CN804
R
G
B
VD
HD
TEMP FUSE
BALLAST
LAMP
VISCA
M OUT
TO GBA BOARD CN674
TO B BOARD CN403
TO B BOARD CN405
KEY-MATRIX S001-008
KEY-MATRIX S009-012
LED D001-003
Q001 SWITCH
D008 POWER/STBY
CN1001
HCK1R
HCK1G
HCK1B
HCK2B
HCK2G
HCK2R
VCK
ENB
VST
PRG
HST
PCG
PRP
PB DIR
DNW


TP809
R INV
IC818
R LCD DRIVER
INV-OUT
R OUT
VIDEO IN
POS-CON1
POS-CON2
SCEN
SID-OUT
DLY-CON
INV-CON
ENB
FRP
PRG
MCLK
MCLK
R VCOM
VCOM OFST
DWN
SH-OUT4
SH-OUT3
SH-OUT5
SH-OUT2
SH-OUT6
SH-OUT1
DIR-CNT
VCOM OUT
SID-OUT
POS-CNT1
POS-CNT2
SIG CEN
SID-IN
DLY-CNT
INV-CNT
VID4
VID3
VID5
VID2
VID6
VID1
+15 5V
CN813
SIG4
SIG3
SIG5
SIG2
SIG6
SIG1
RGT
COM
HST
HCK2R
HCK1R
ENB
VCK
VST
PCG
PSIG
DWN
LCD PANEL (R)
Q806, 807
R-SID IN
R-SID BUFF
R-SID OUT
TP806
G INV
IC815
G LCD DRIVER
(SAME AS R PROCESS)
G OUT
G VCOM
CN811
HCK2G
HCK1G
LCD PANEL (G)
Q804, 805
G-SID IN
G-SID BUFF
G-SID OUT
TP810
B INV
IC817
B LCD DRIVER
B OUT
B VCOM
CN812
HCK2B
HCK1B
LCD PANEL (B)
Q808, 809
B-SID IN
B-SID BUFF
B-SID OUT
IC813
12CH D/A CONVERTER
SDAT
D-SCLK
DALD
DI
CLK
LD
A03
A04
A08
A09
A010
A011
A012
SH2
A06
SCEN
A05
A07
Q802
BUFF
Q803
BUFF
IC814
SWITCH
SID-OUT
PRG
R VCON
G VCON
B VCON
POS-CON1
POS-CON2
SCEN
DWN
DLY-CON
INV-CON
IC801
+15V REG
+16 5V
+15 5V
IC802
+12V REG
+12V
IC822 (2/6)
PB DIR

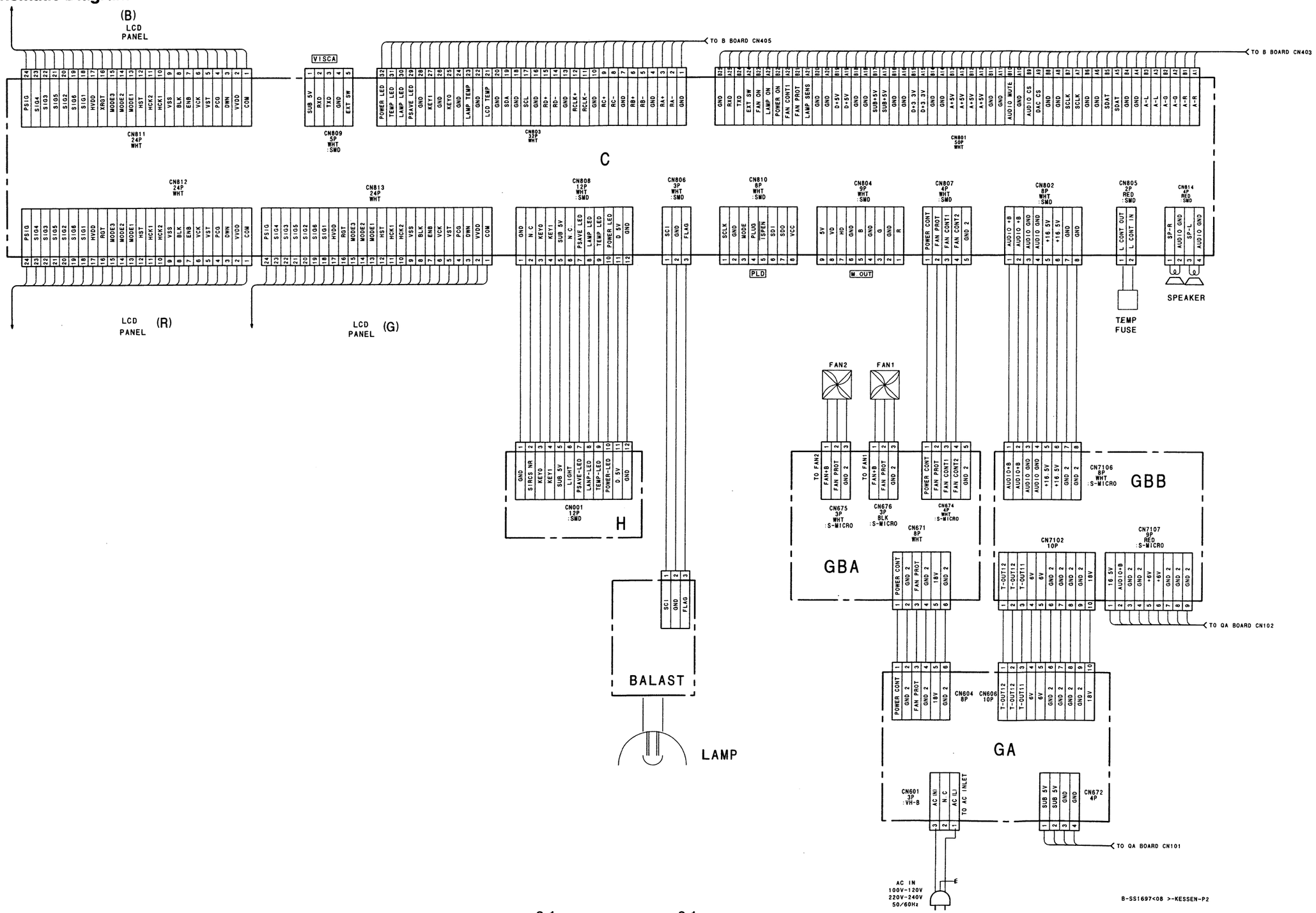
C, H BLOCK



GA, GBA, GBB BLOCK

Section 8
Diagrams

8-1. Frame Schematic Diagram



8-2 8-2

VPL-CS1

SONY-SP1179 / DRUCK: 10

8-2. Schematic Diagrams and Printed Wiring Boards

Note:

- Parts marked " * " differ according to the model/destination. Refer to the mount table for each function.
- The parts marked " # " on schematic diagrams are not mounted.
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
- : fusible resistor
- : nonflammable resistor
- : panel designation and adjustment for repair
- Caution when replacing chip parts
  New parts must be attached after removal of the chip.
  Be careful not to heat the minus side of a tantalum capacitor, because it is easily damaged by the heat.

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

[Measuring conditions, voltage and waveform]

- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal is received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal and RGB color bar signal are received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- Unit of voltage is V (volt).
- : B+line
  : B– line
- Voltage variations may occur due to normal production tolerances.
- No mark : NTSC (3.58 MHz) color bar signal.
- [ ] : RGB color bar signal is received.
- ★ : Measurement disabled.
- Circled numbers indicate the reference waveform.
- : Signal path.

The components identified marked ⚠ are critical for safety.
Replace only with the part number specified.

Les composants identifiés par la marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

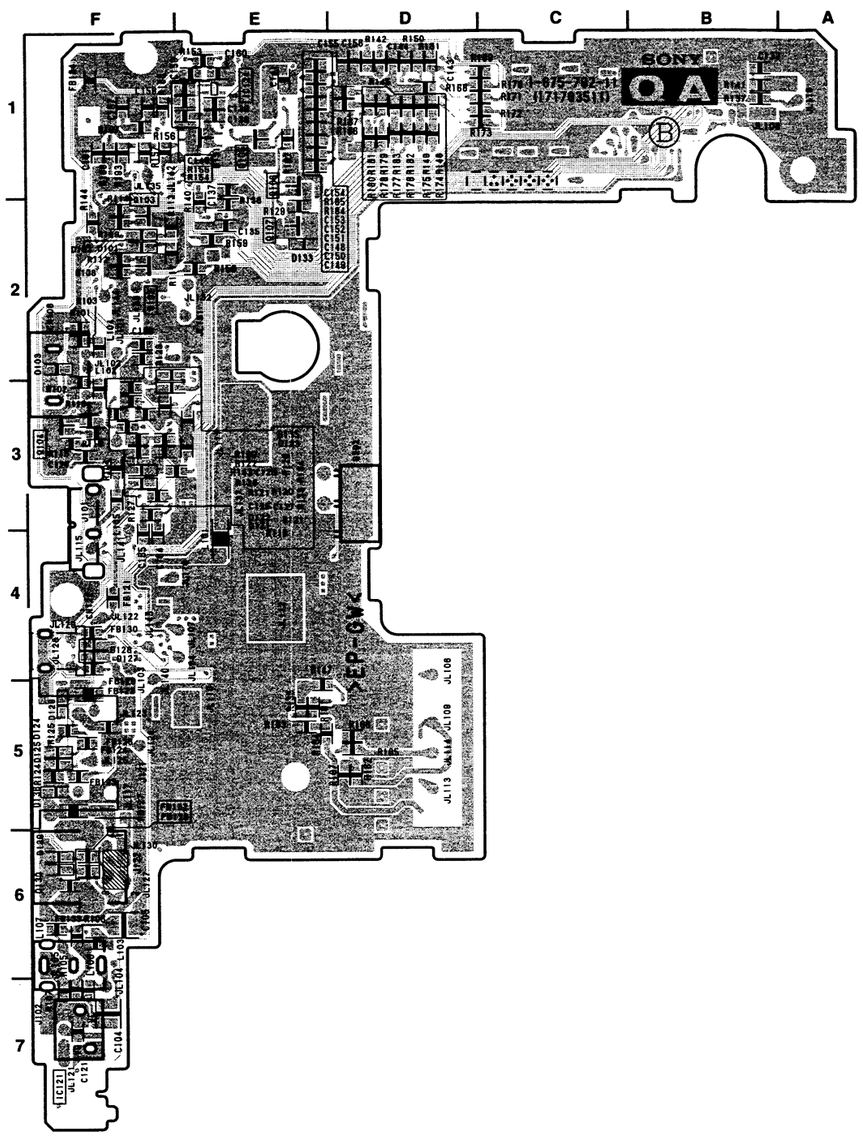
8-3

QA

1-675-792-11

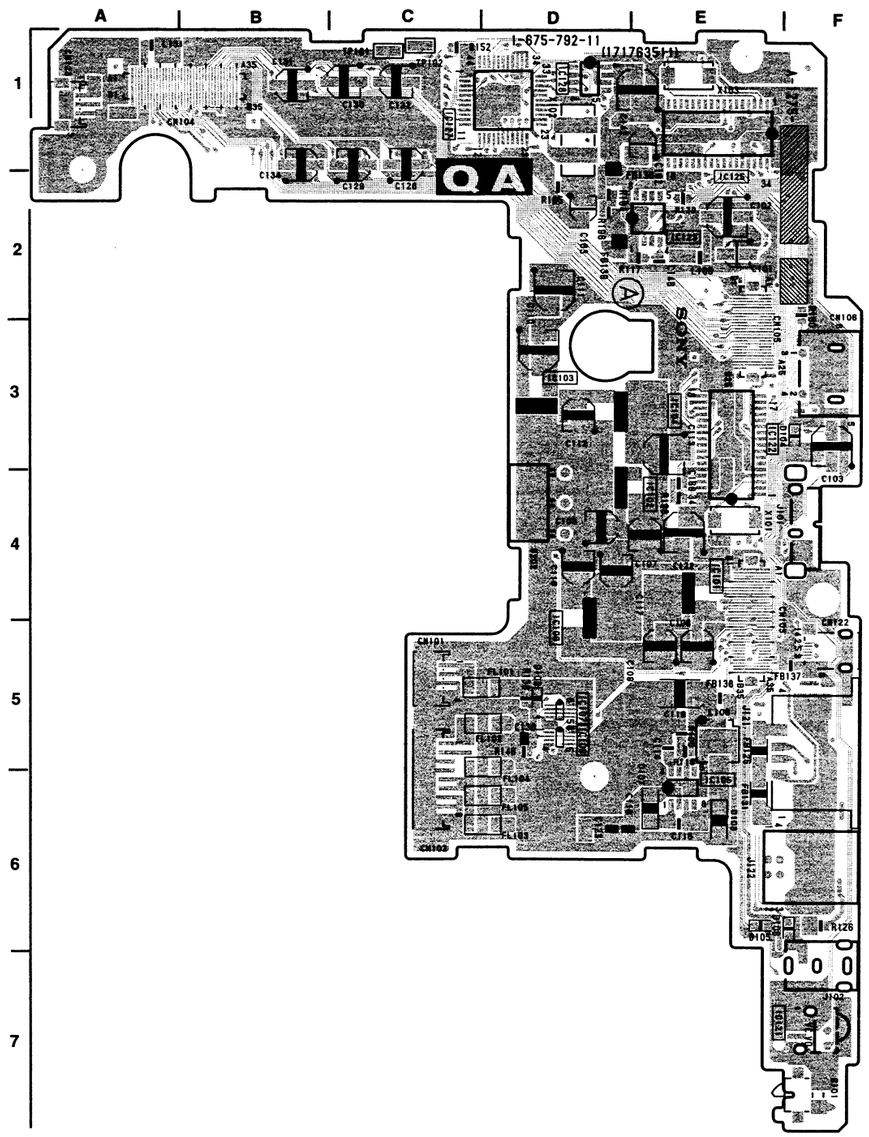
D101	E-2
D102	E-2
D103	F-3
D104	F-3
D105	C-7
D106	C-7
D107	C-6
D108	C-6
D109	D-5
D121	* D-4
D122	* D-4
D123	* D-3
D124	* F-5
D125	* F-5
D126	* F-5
D127	* E-5
D128	* E-5
D129	* F-6
D130	* F-6
D131	* F-6
D133	* D-2
D135	* D-3
IC101	E-4
IC102	E-4
IC103	D-3
IC104	E-3
IC105	D-4
IC105	E-6
IC107	D-5
IC108	D-5
IC121	E-7
IC121	* F-7
IC122	E-3
IC123	E-2
IC124	* E-1
IC125	E-1
IC127	C-1
IC128	D-1
Q102	* E-2
Q103	* E-2
Q104	* F-3
Q105	* E-1
Q106	* D-2
Q107	* D-2
TP101	C-1
TP102	C-1
X101	E-4
X102	D-1
X103	E-1

*:B Side mount



QA – B SIDE –

SUFFIX ; -11



QA – A SIDE –

SUFFIX ; -11

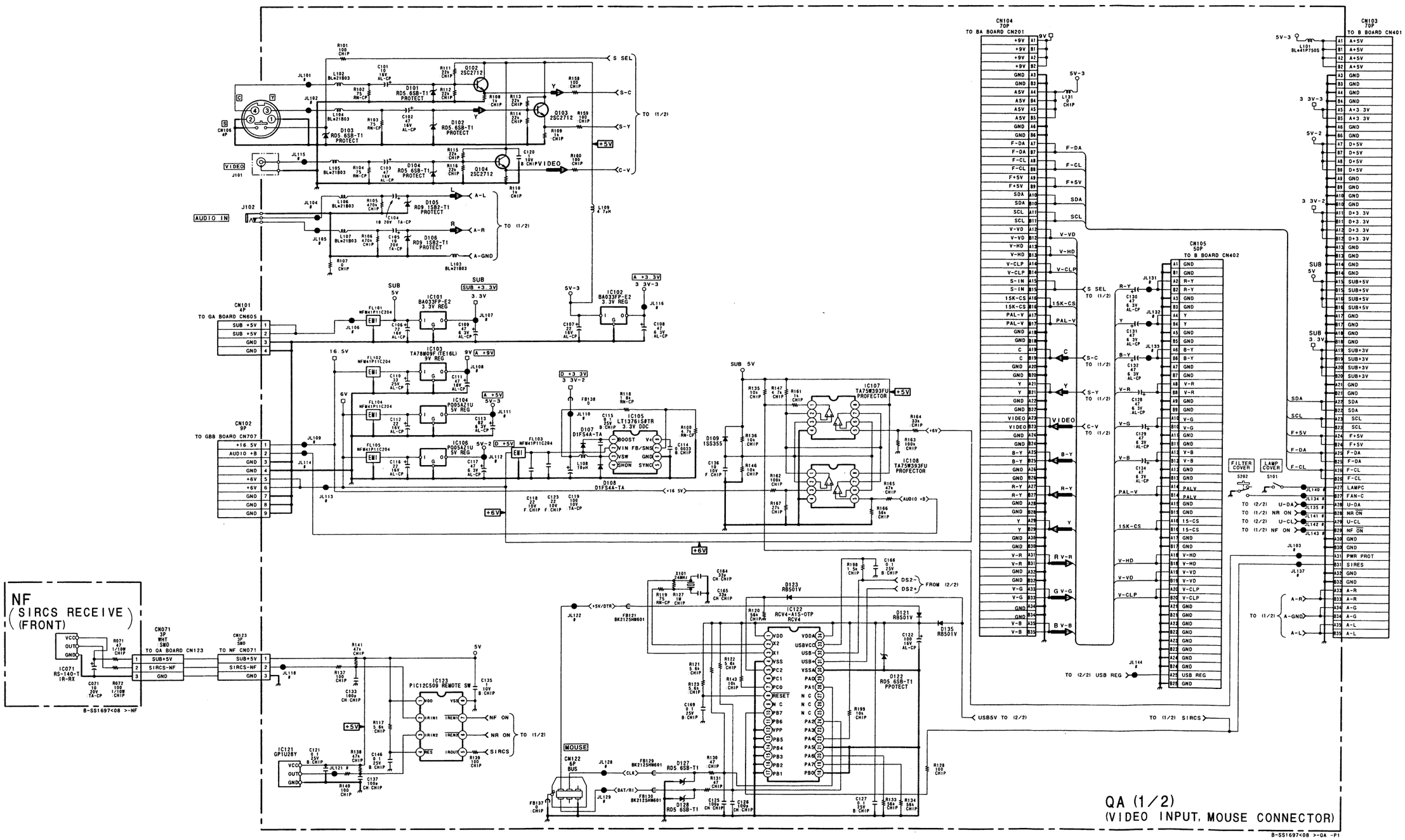
NF – B SIDE –

SUFFIX ; -11

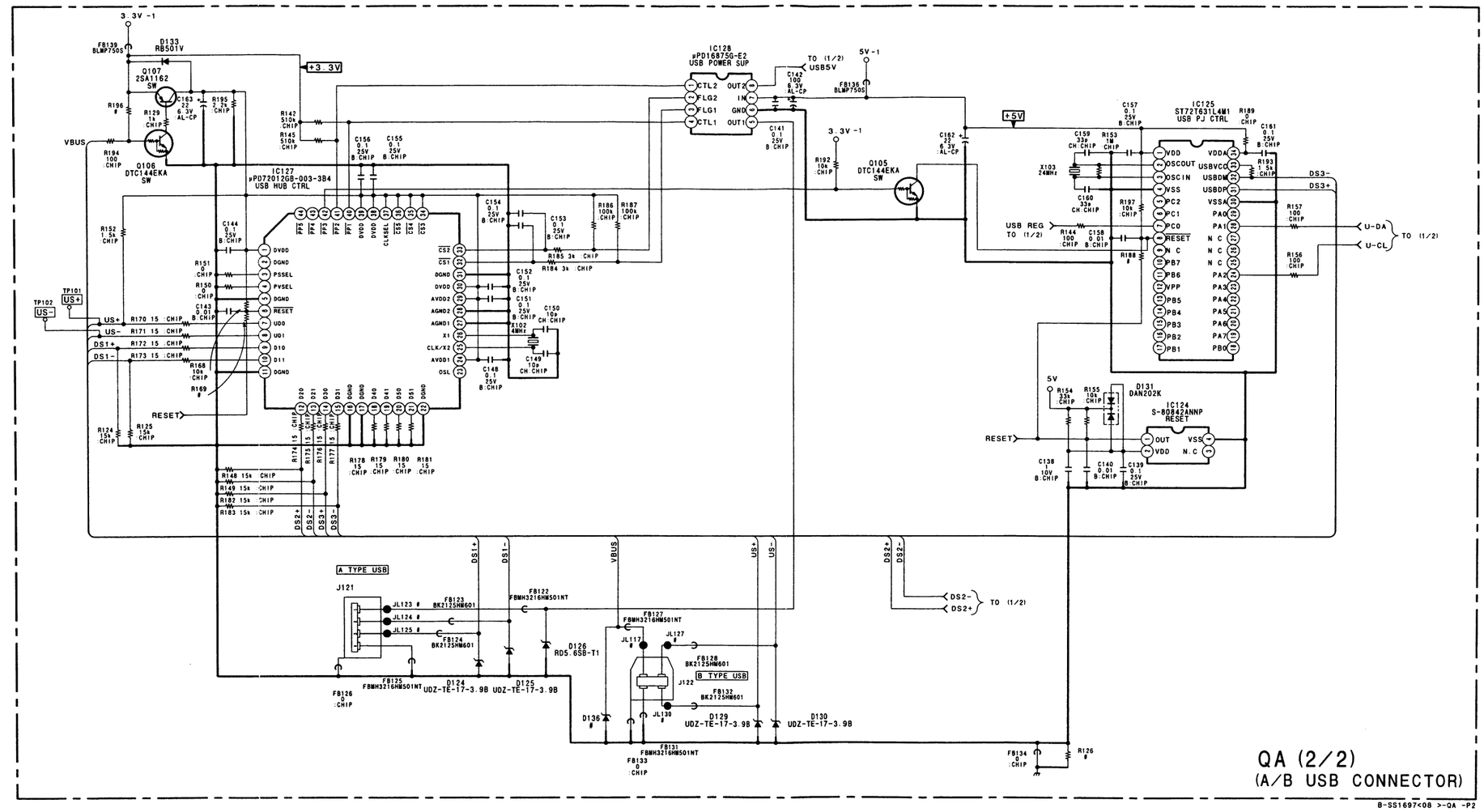
NF – A SIDE –

SUFFIX ; -11

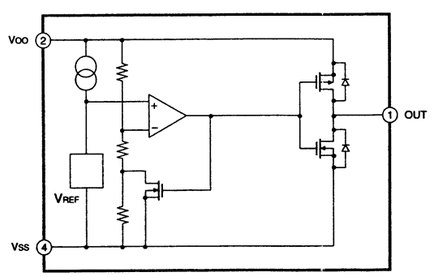
• Refer to page 8-4 for Printed Wiring Board



• Refer to page 8-4 for Printed Wiring Board



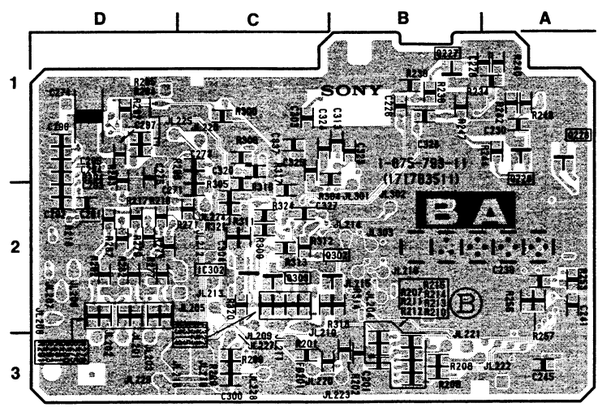
S-80842ANNP (IC124)



—
BA
—
1-675-793-11

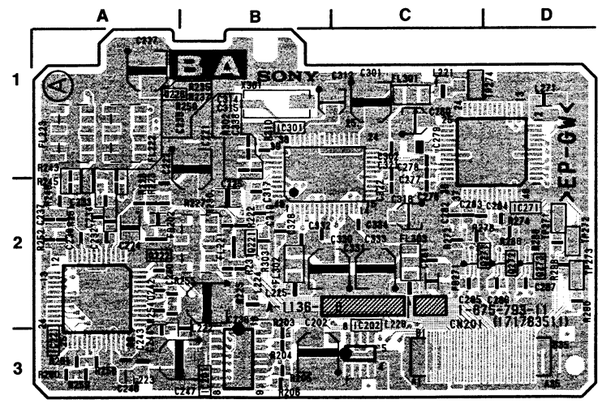
IC201	B-3
IC202	C-2
IC221	A-3
IC271	D-2
IC301	B-1
IC302	* C-2
Q221	B-2
Q222	A-2
Q226	A-1
Q227	* A-1
Q228	* A-1
Q229	* A-1
Q271	C-2
Q272	D-2
Q273	D-2
Q302	* B-2
Q303	* C-2
TP271	D-2
TP272	D-2
TP273	D-2
TP274	C-1
X301	B-1

*:B Side mount



BA – B SIDE –

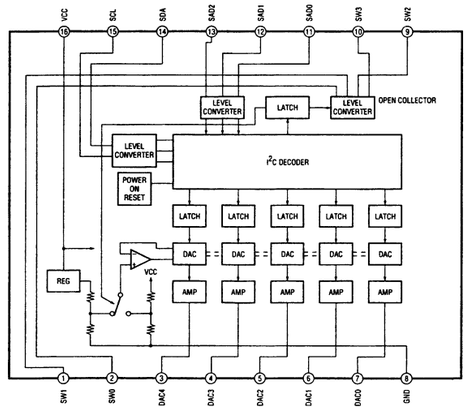
SUFFIX ; -11



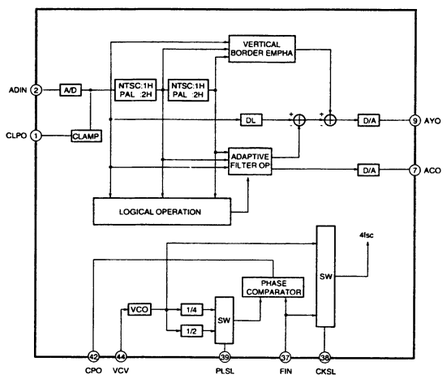
BA – A SIDE –

SUFFIX ; -11

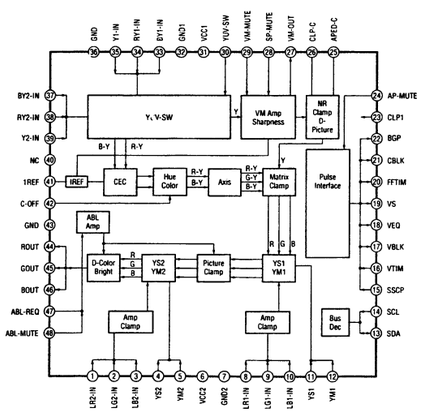
CXA1875AM-T4 (IC201)



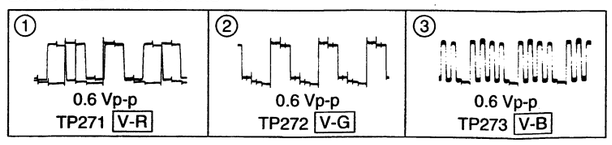
CXD2064Q-T6 (IC221)



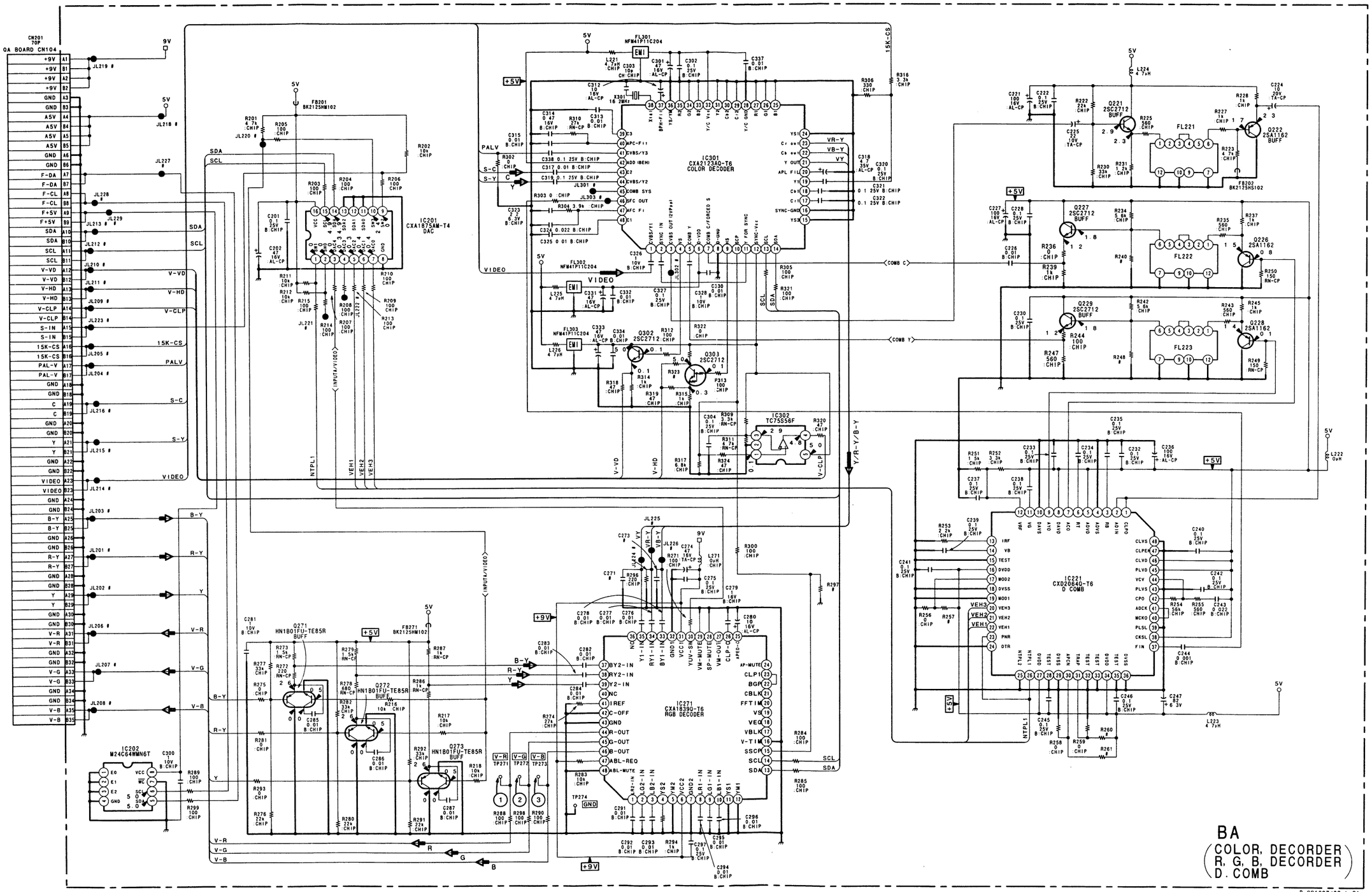
CXA1839Q (IC271)

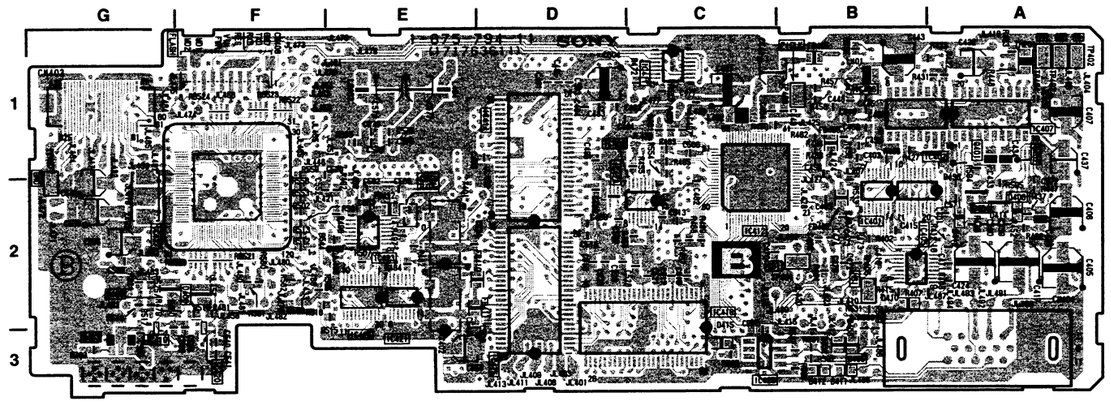


BA Board Waveforms



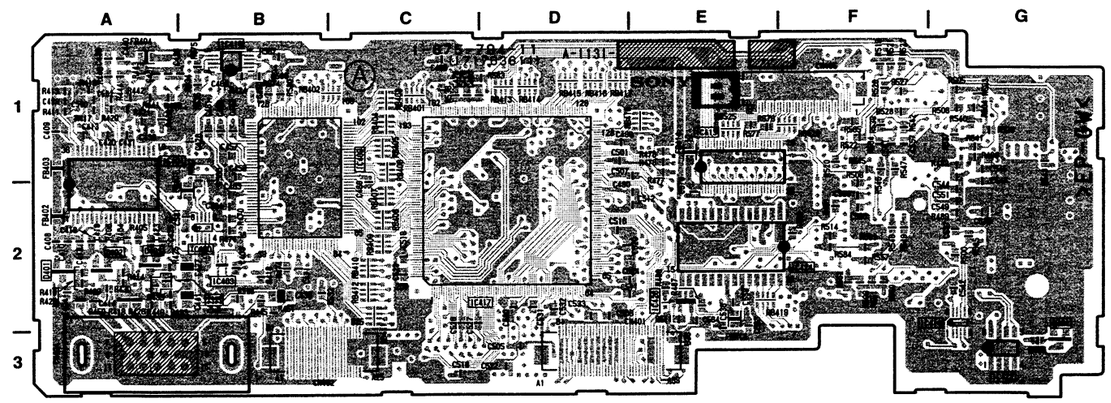
- Refer to page 8-7 for Printed Wiring Board
- Refer to page 8-7 for Waveforms
- Refer to page 8-7 for IC Block Diagrams





B – B SIDE –

SUFFIX ; -11



B – A SIDE –

SUFFIX ; -11

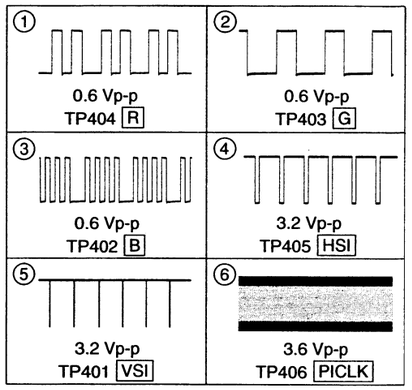
B

1-675-794-11

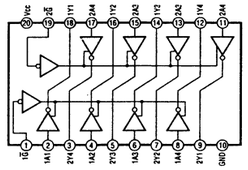
D401	A-2
D402	A-2
D403	A-2
D404	* A-2
D406	* A-2
D408	* G-2
D409	* F-2
D410	* B-2
D411	* B-3
D412	* B-3
D413	* A-2
D414	* A-2
D415	* C-3
IC401	* B-2
IC402	* B-1
IC403	B-2
IC404	A-1
IC405	* B-2
IC406	* B-1
IC407	D-2
IC407	* A-1
IC408	C-1
IC408	* D-1
IC410	B-1
IC411	* D-1
IC412	* C-2
IC413	E-1
IC414	* E-1
IC415	* E-3
IC416	* C-2
IC418	G-2
IC419	* F-3
IC420	* F-3
IC421	* E-3
IC422	G-3
IC423	* E-2
IC424	F-2
IC425	* E-2
IC427	* F-2
IC428	E-2
IC428	* D-1
IC429	* C-3
IC430	B-2
Q401	* A-1
Q402	* A-1
Q403	* G-3
Q405	* B-3
TP401	* B-2
TP402	* A-1
TP403	* A-1
TP404	* A-1
TP405	* B-2
TP406	* C-1
TP407	* G-1
X401	* E-2
X402	* E-3
X403	* G-2

*:B Side mount

B Board Waveforms

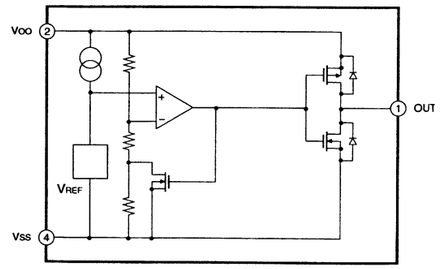


74VHC240MTCX (IC402)

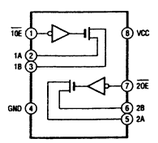


S-80842ANNP (IC419)

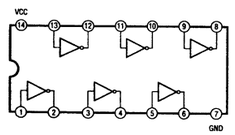
S-80828ANNP (IC420)



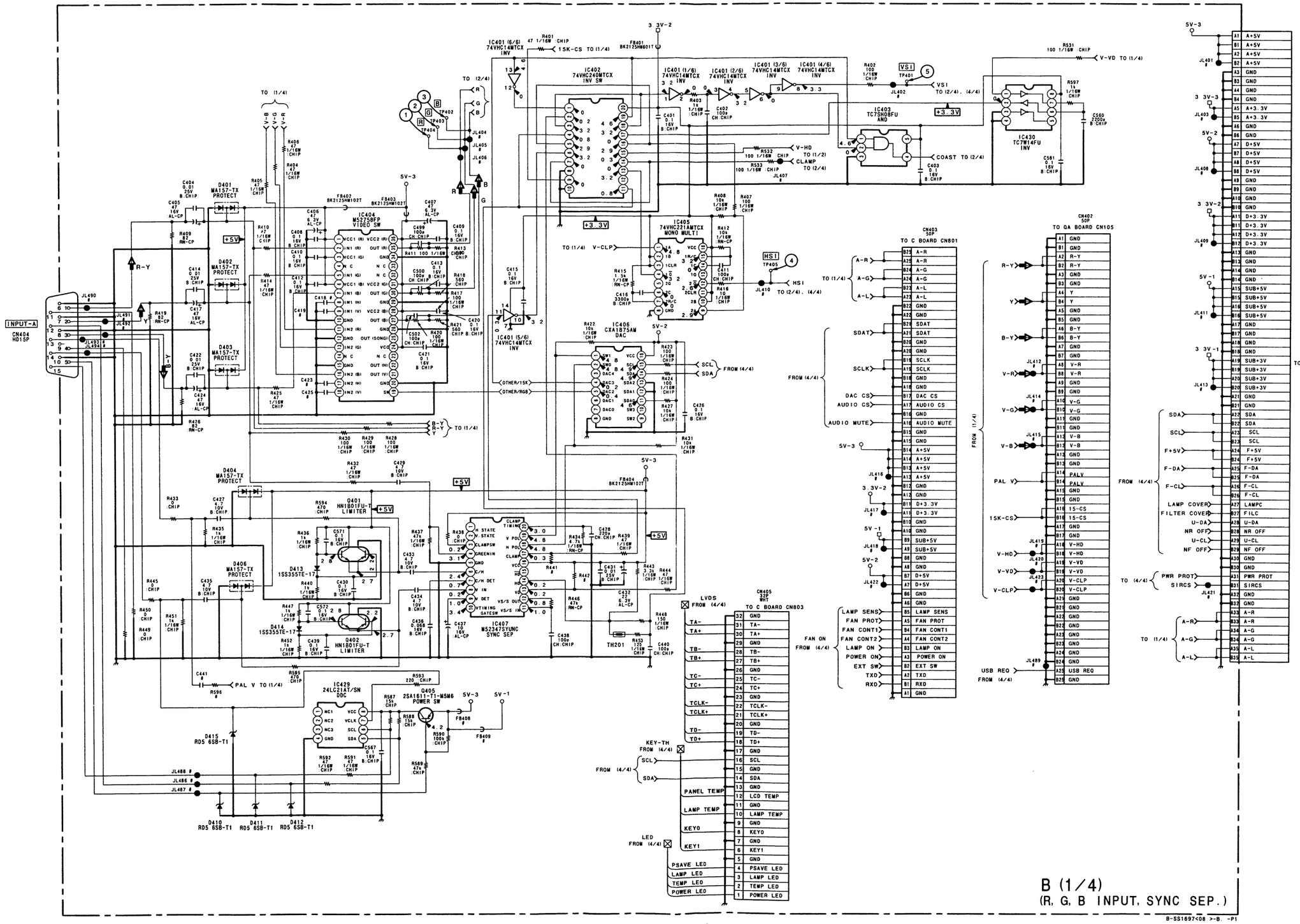
SN74CBTD3306PWR (IC410)



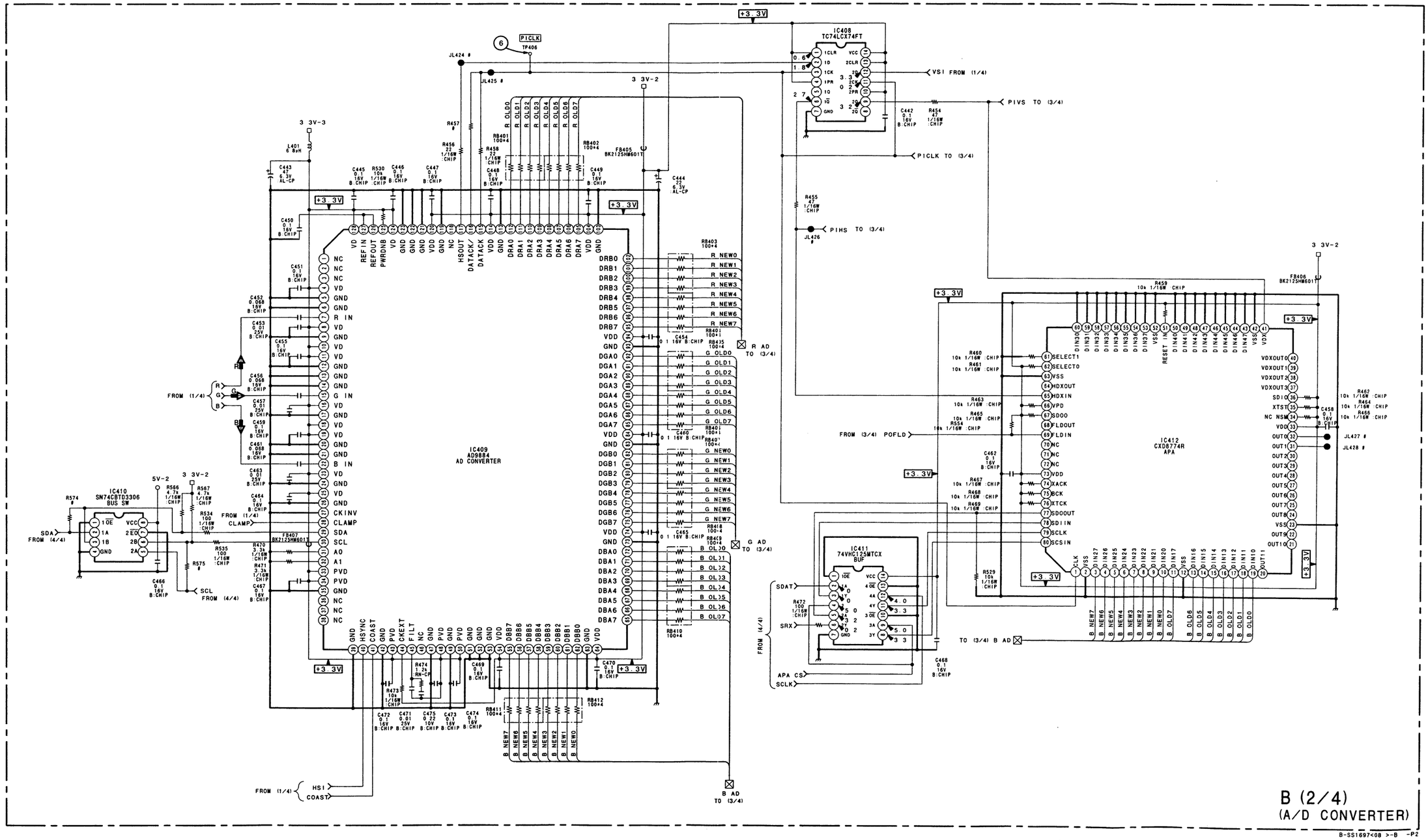
TC74LCX04FT (IC421)



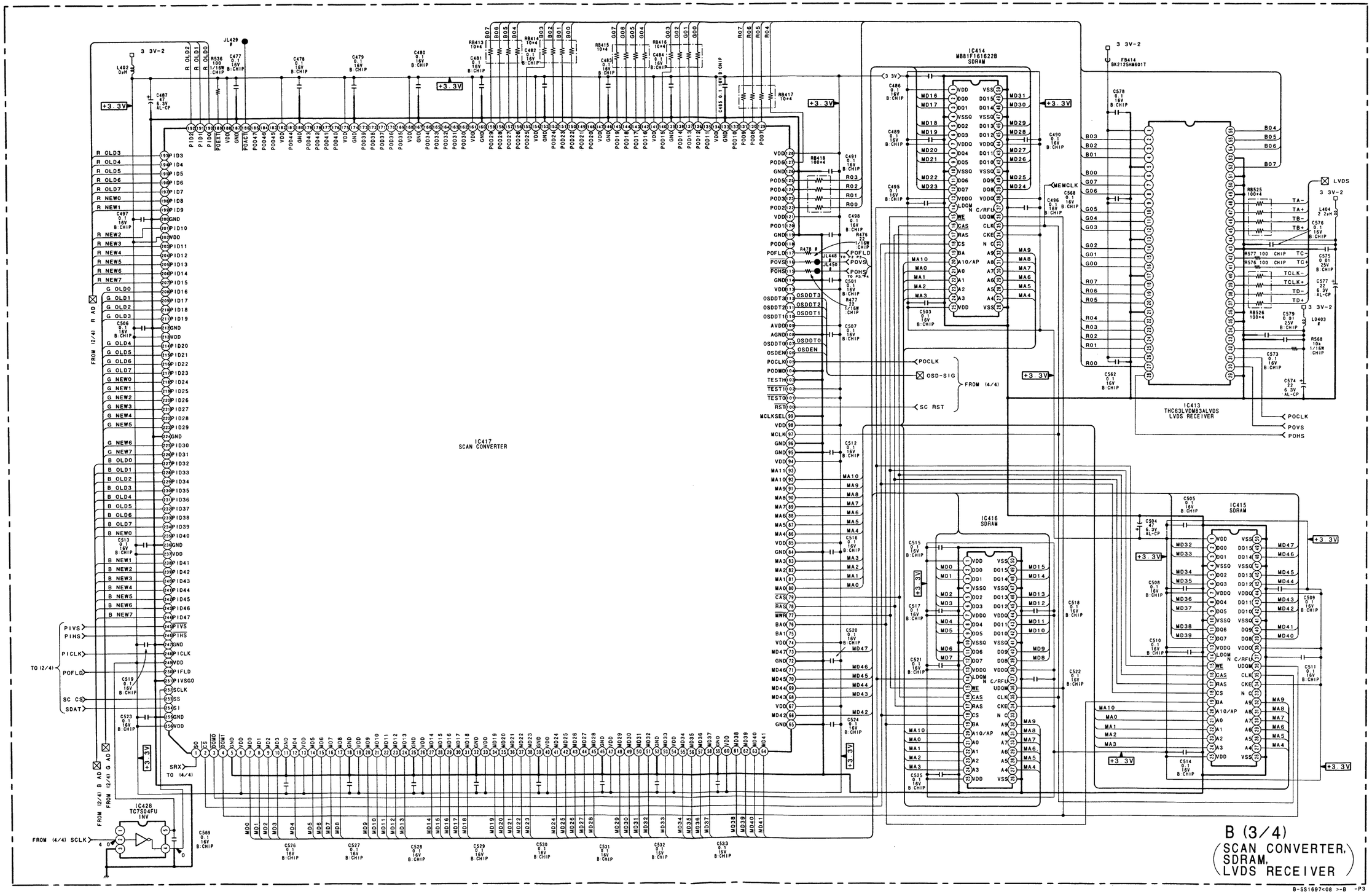
- Refer to page 8-9 for Printed Wiring Board
- Refer to page 8-9 for Waveforms
- Refer to page 8-9 for IC Block Diagrams



- Refer to page 8-9 for Printed Wiring Board
- Refer to page 8-9 for Waveforms
- Refer to page 8-9 for IC Block Diagrams

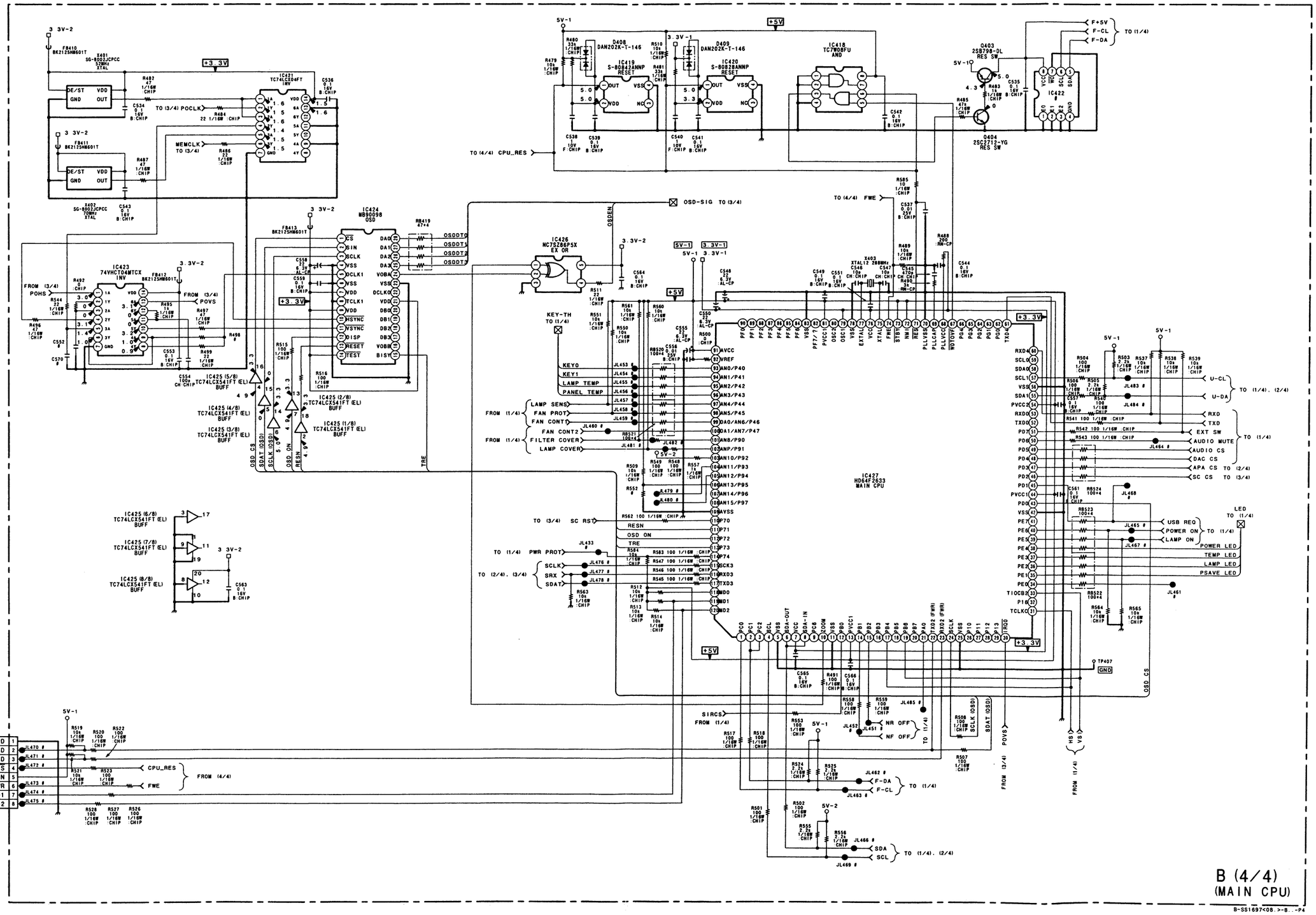


- Refer to page 8-9 for Printed Wiring Board
- Refer to page 8-9 for Waveforms
- Refer to page 8-9 for IC Block Diagrams



B-SS1697<08 >-B -P3

- Refer to page 8-9 for Printed Wiring Board
- Refer to page 8-9 for Waveforms
- Refer to page 8-9 for IC Block Diagrams

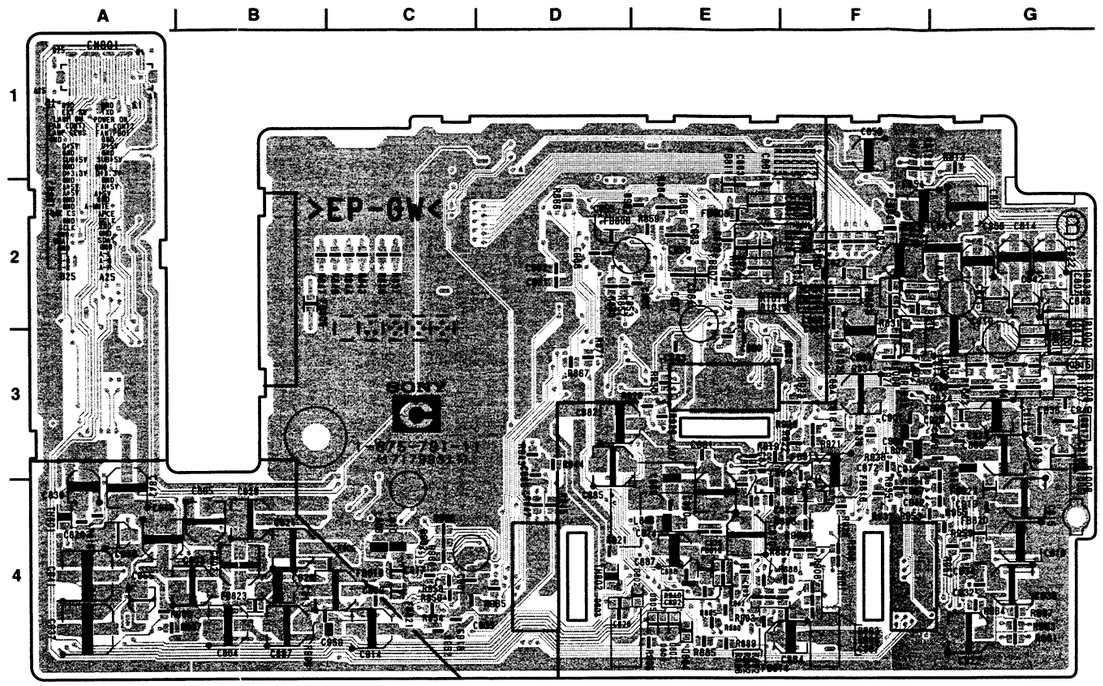


C C

–
C
–
1-675-791-11

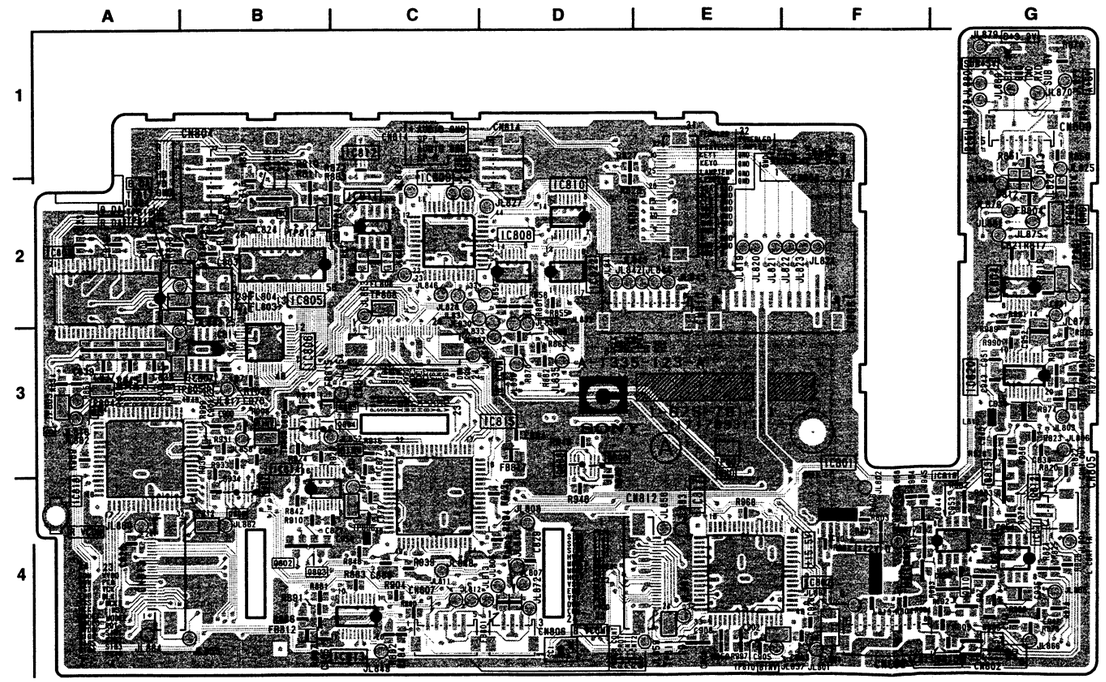
D801	G-3
D802	* D-4
D803	* D-4
D804	* C-4
D805	* C-4
D806	* C-4
D807	* C-4
D812	G-2
D813	G-2
D814	G-2
IC801	F-3
IC802	F-4
IC803	A-2
IC804	G-2
IC805	B-2
IC806	B-3
IC807	B-3
IC808	C-2
IC808	D-2
IC810	D-2
IC811	C-2
IC812	C-1
IC813	C-4
IC814	B-3
IC815	D-3
IC817	E-4
IC819	G-3
IC820	G-3
IC821	G-4
IC822	D-2
Q801	* A-3
Q802	B-4
Q803	B-4
Q804	C-3
Q805	C-3
Q807	B-3
Q808	B-4
Q808	D-3
Q809	D-3
Q810	G-4
Q811	F-4
Q812	G-3
Q814	* A-3
Q815	* A-3
Q816	G-4
Q817	* A-3
Q819	G-3
TP801	G-2
TP802	G-2
TP803	A-3
TP804	A-3
TP805	A-3
TP806	C-4
TP807	E-3
TP808	C-2
TP809	B-3
TP810	E-4
TP811	E-4
TP812	B-4
TP813	B-2
TP814	B-2
TP815	A-2
TP816	A-2

*:B Side mount



C – B SIDE –

SUFFIX ; -11



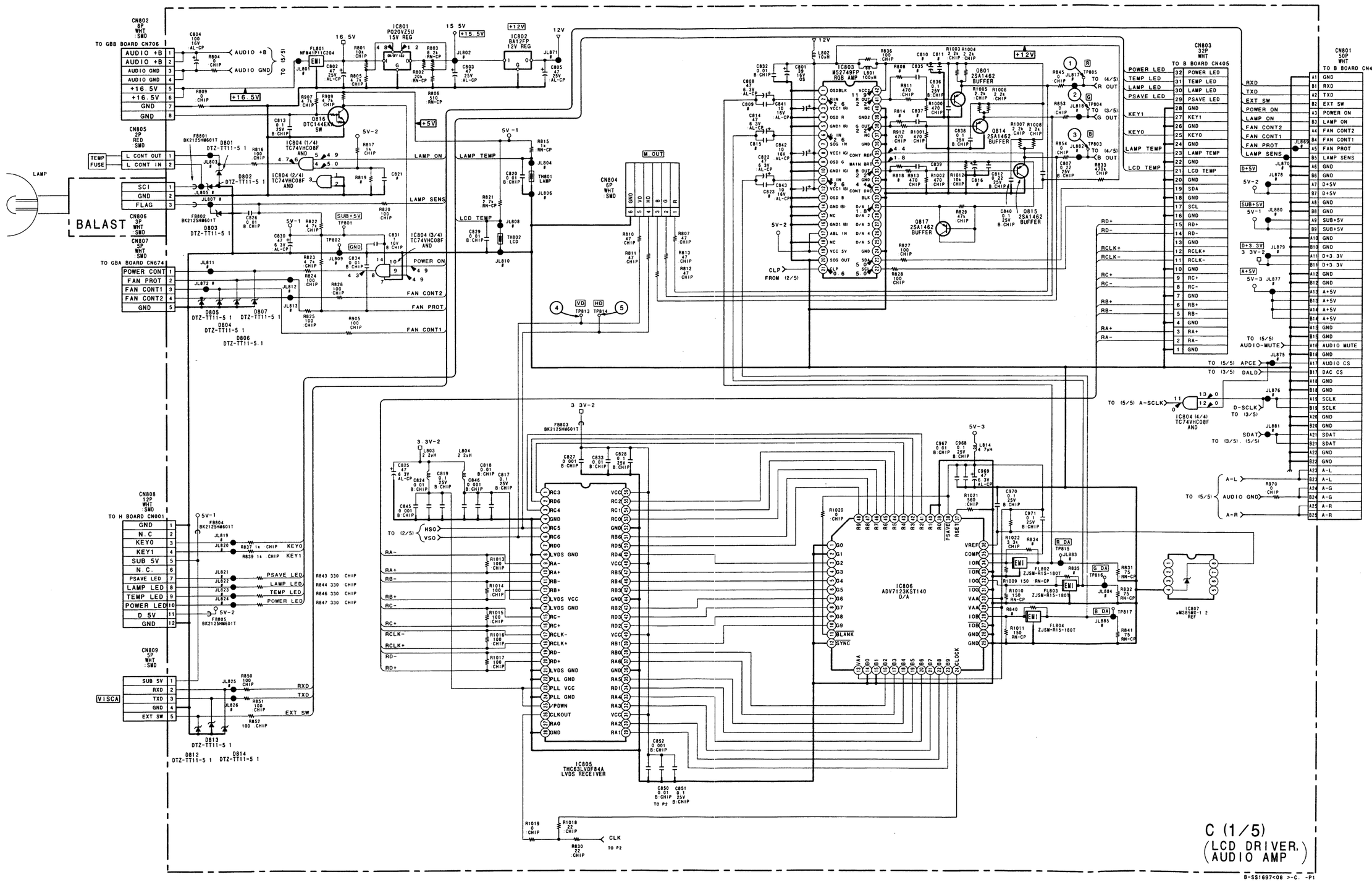
C – A SIDE –

SUFFIX ; -11

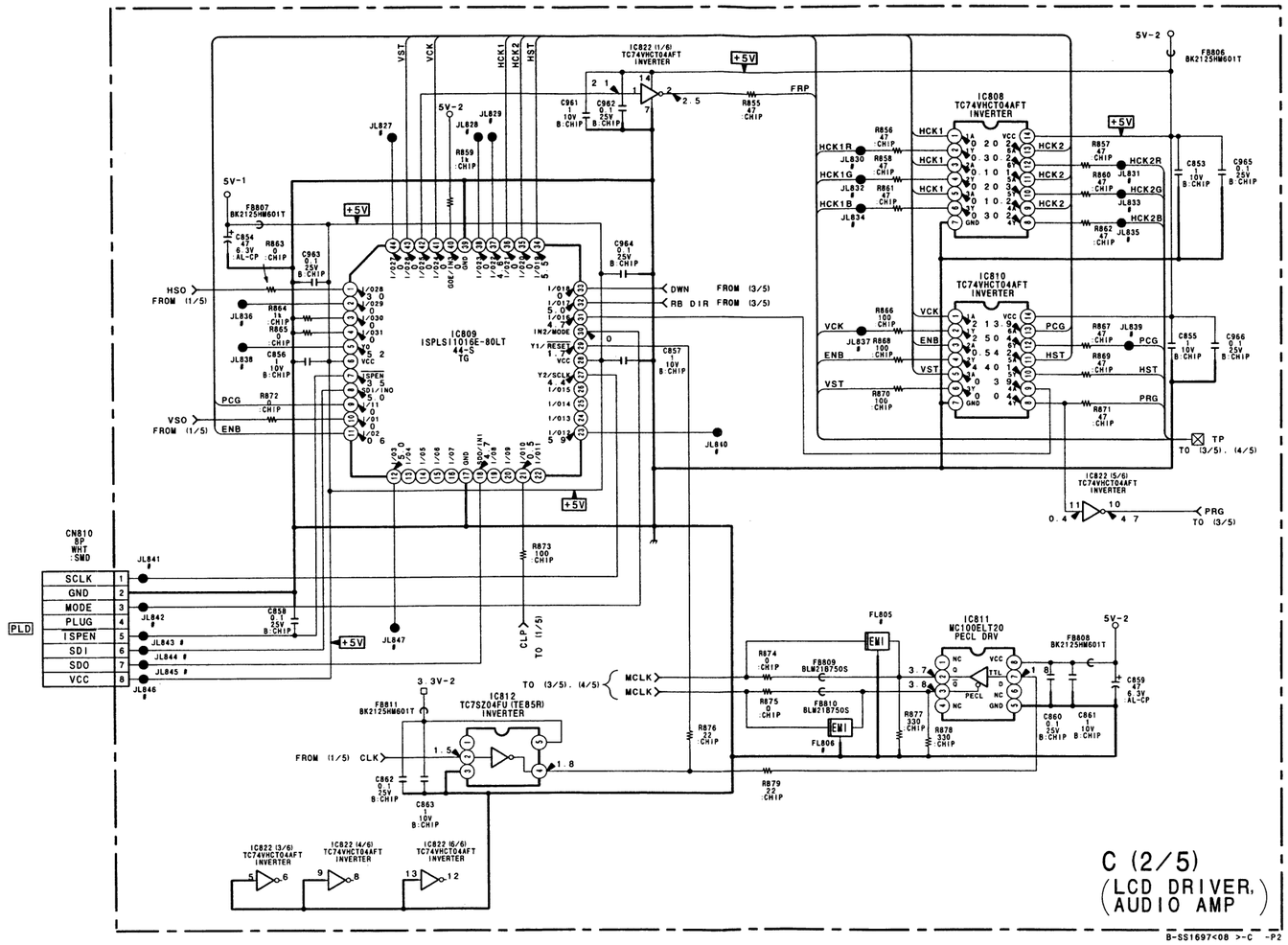
8-14 8-14

VPL-CS1

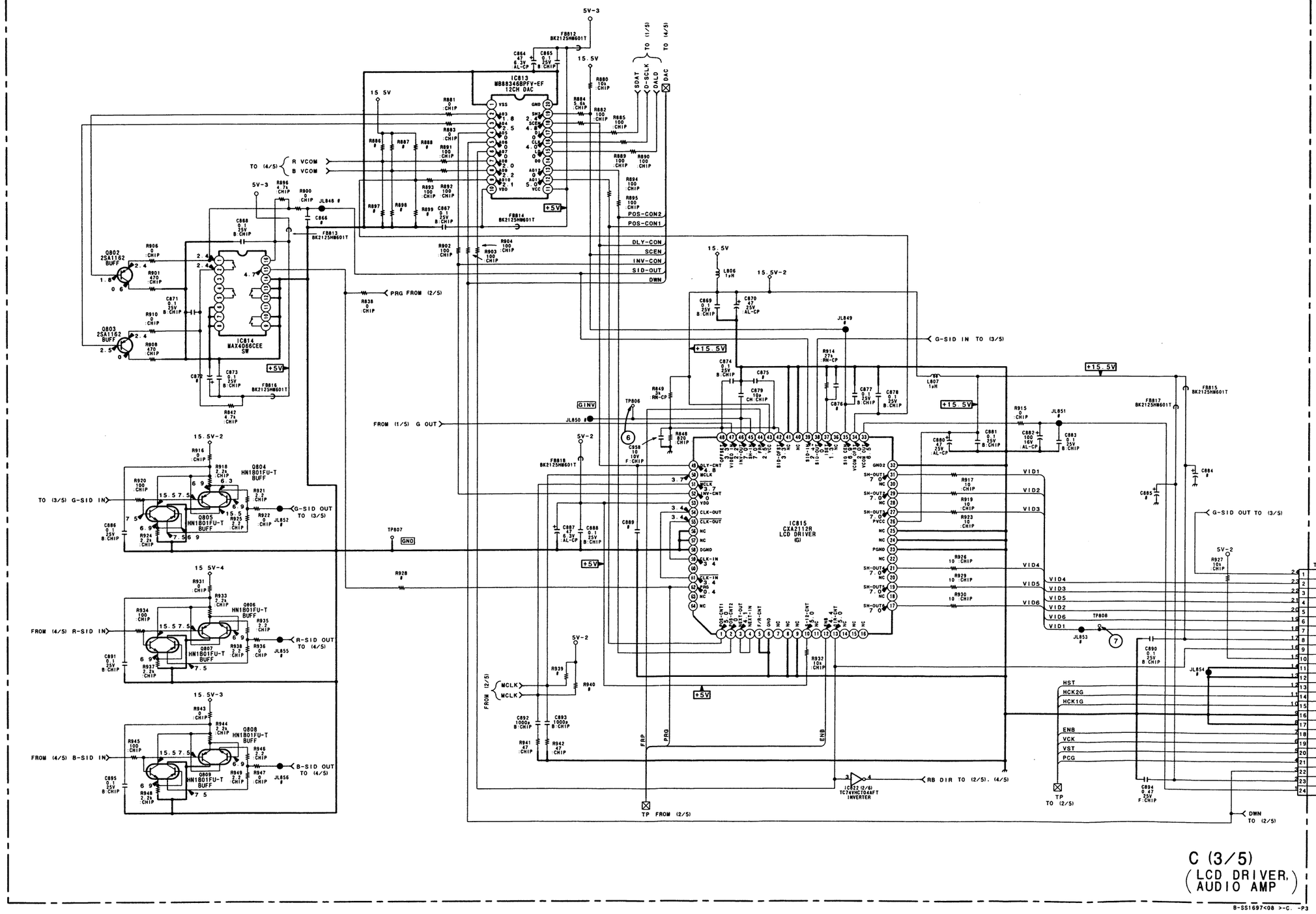
- Refer to page 8-14 for Printed Wiring Board
- Refer to page 8-20 for Waveforms
- Refer to page 8-20 for IC Block Diagrams



• Refer to page 8-14 for Printed Wiring Board
• Refer to page 8-20 for Waveforms
• Refer to page 8-20 for IC Block Diagrams



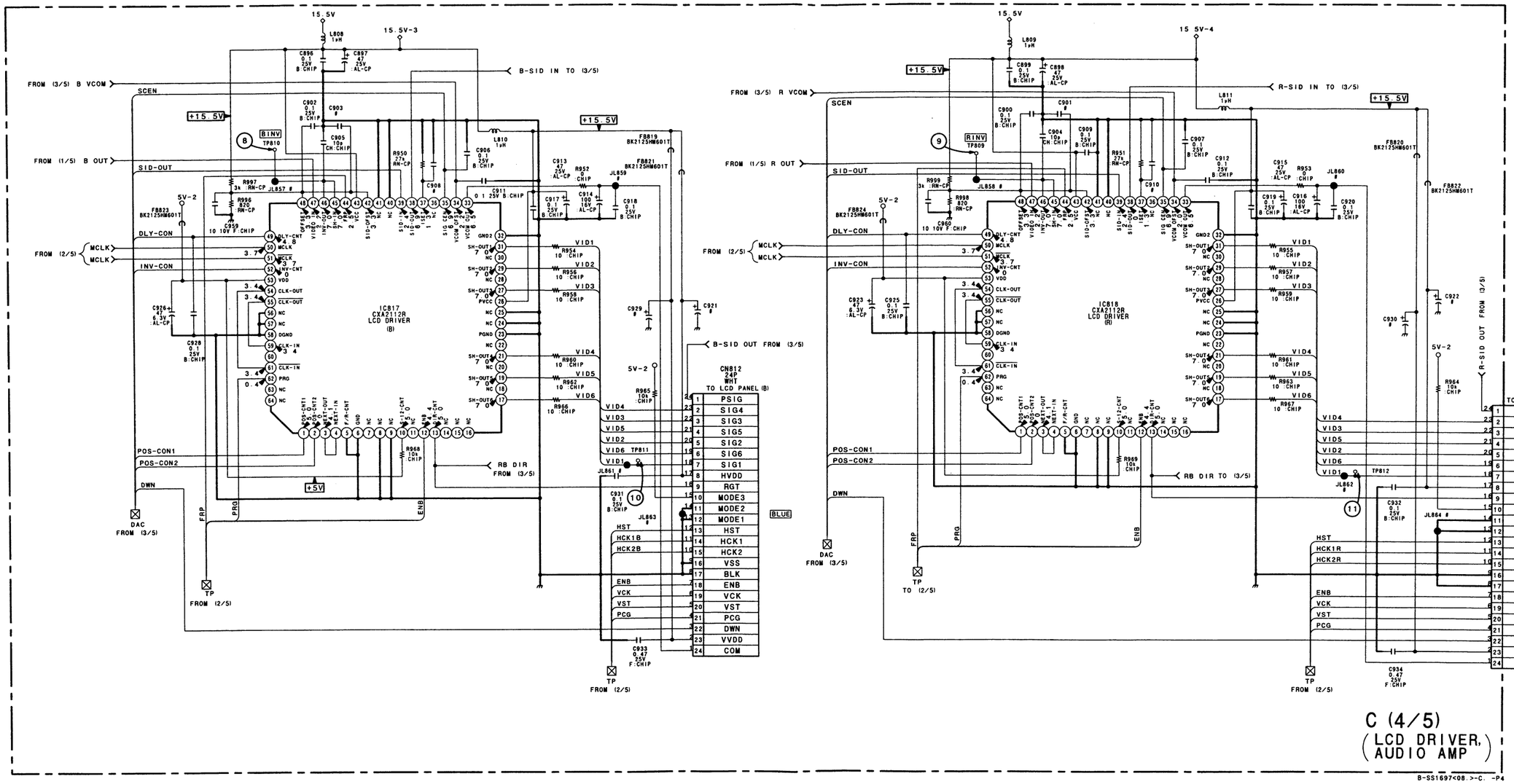
- Refer to page 8-14 for Printed Wiring Board
- Refer to page 8-20 for Waveforms
- Refer to page 8-20 for IC Block Diagrams



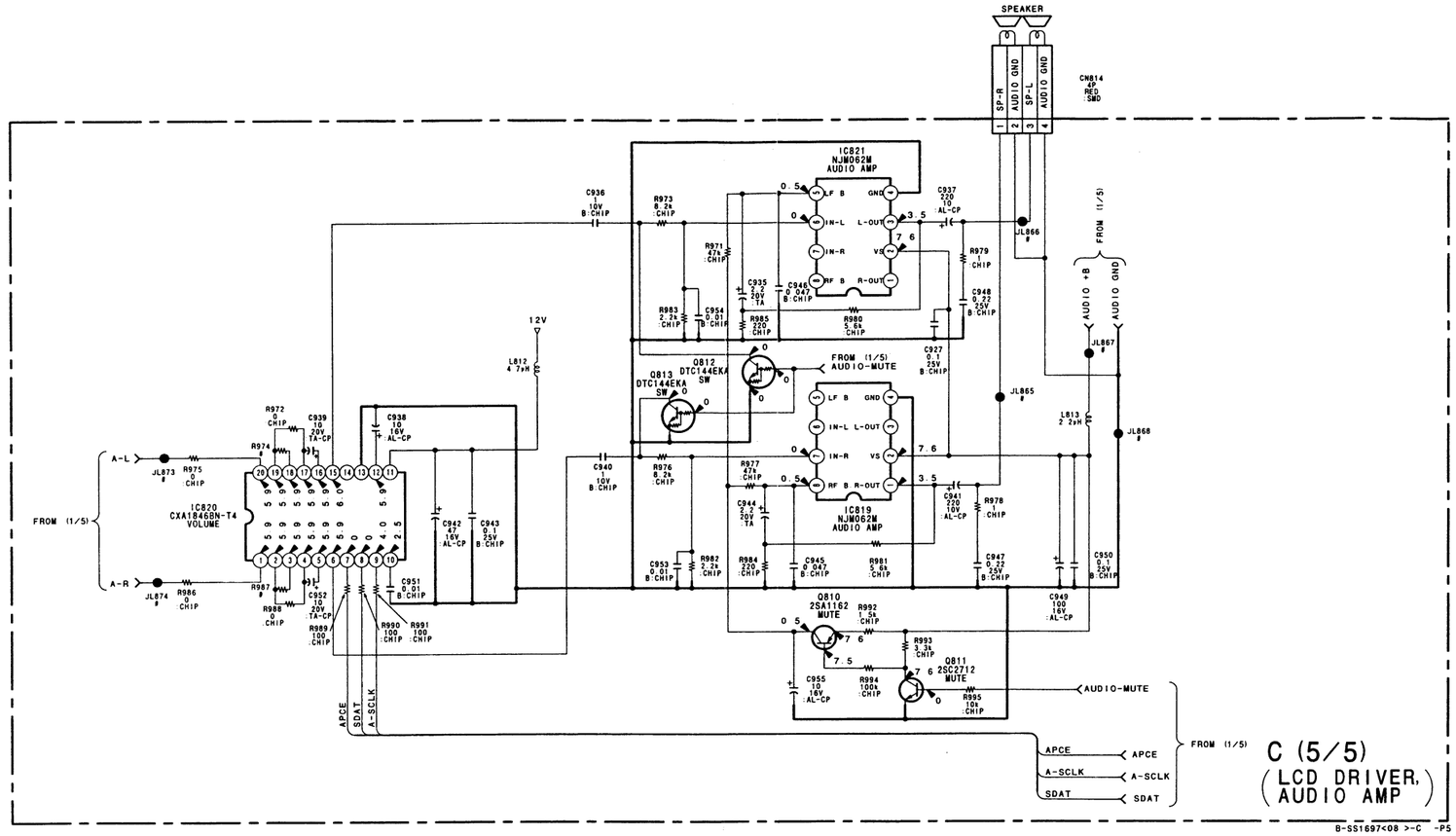
C (3/5)
(LCD DRIVER, AUDIO AMP)

B-SS1697<08 >-C. -P3

- Refer to page 8-14 for Printed Wiring Board
- Refer to page 8-20 for Waveforms
- Refer to page 8-20 for IC Block Diagrams



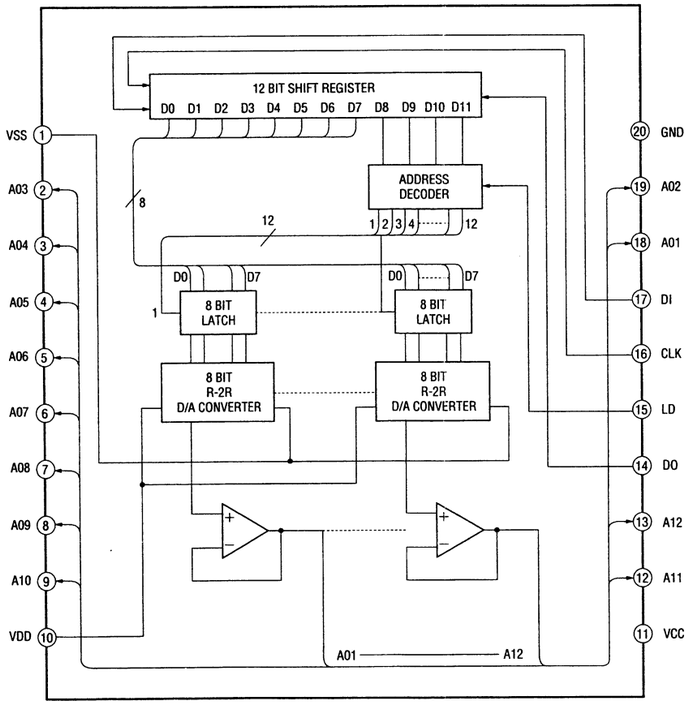
- Refer to page 8-14 for Printed Wiring Board
- Refer to page 8-20 for Waveforms
- Refer to page 8-20 for IC Block Diagrams



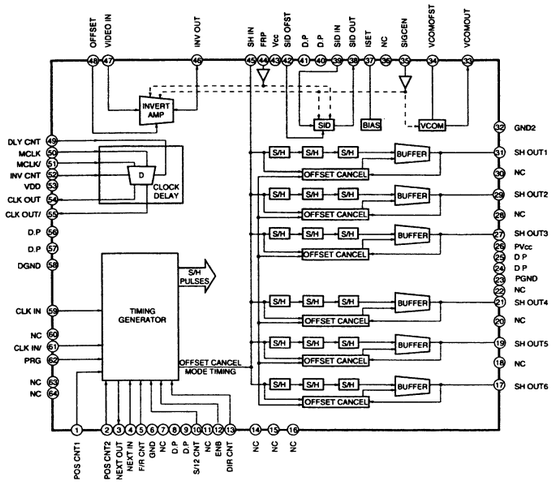
C Board Waveforms

① 1.4 Vp-p TP805 R	② 1.4 Vp-p TP804 G	③ 1.3 Vp-p TP603 B	④ 3.3 Vp-p TP813 VD
⑤ 3.1 Vp-p TP814 HD	⑥ 10.3 Vp-p TP806 GINV	⑦ 10.3 Vp-p TP808 G-VID OUT	⑧ 10.3 Vp-p TP810 BINV
⑨ 10.3 Vp-p TP809 RINV	⑩ 10.3 Vp-p TP811 B-VID OUT	⑪ 10.3 Vp-p TP812 R-VID OUT	

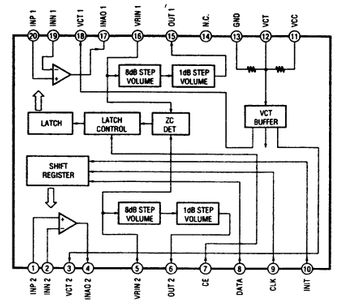
MB88346BPFV-EF (IC813)



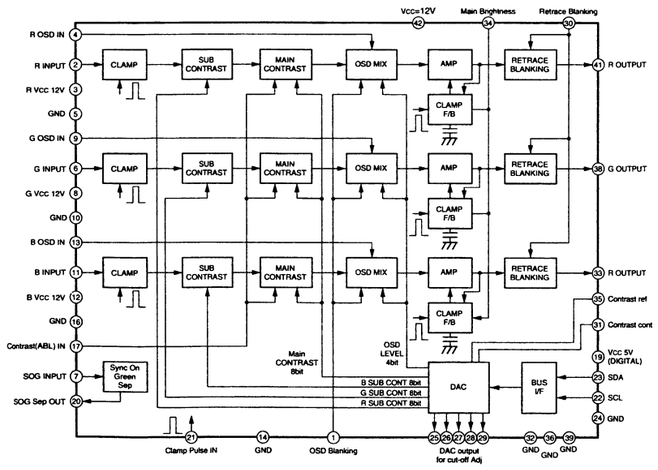
CXA2112R-T6 (IC815, 817, 818)

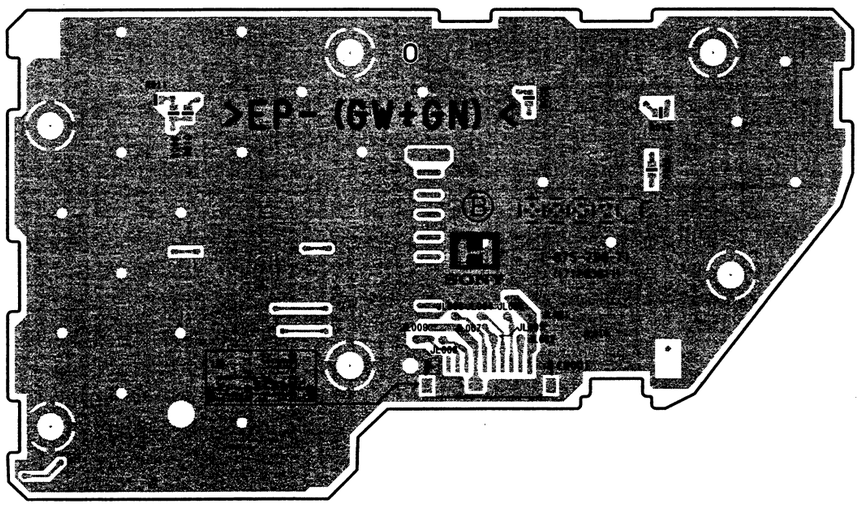


CXA1846AN (IC820)



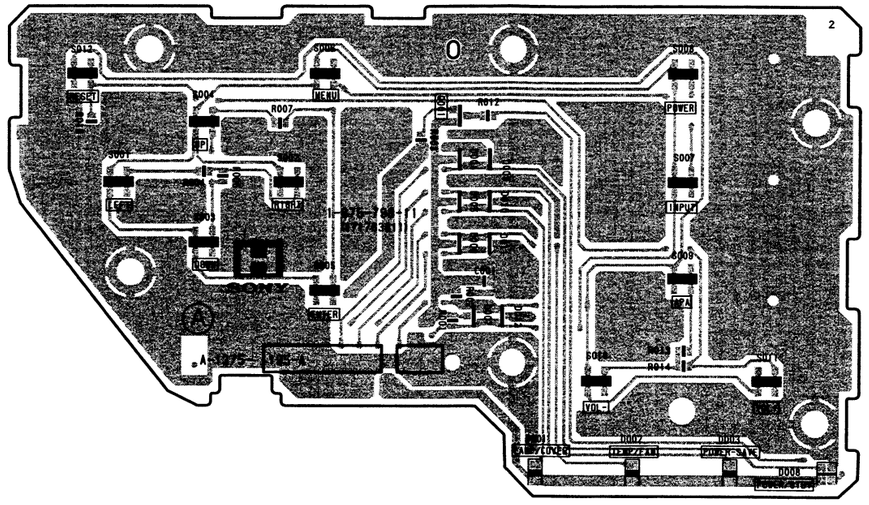
M52749FP-TP (IC803)





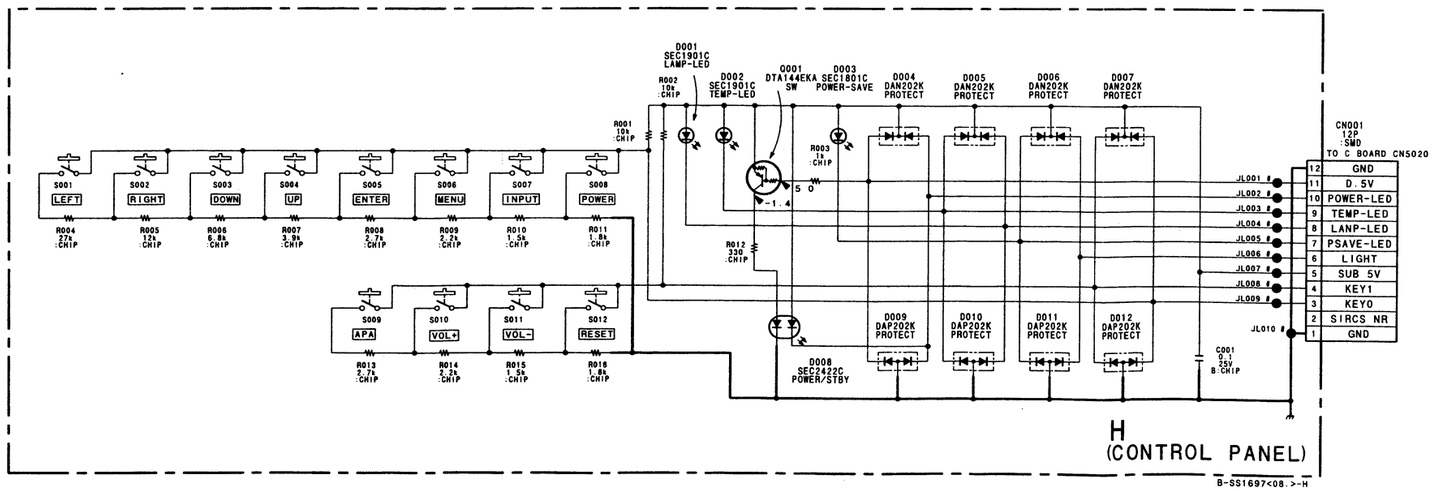
H – B SIDE –

SUFFIX ; -11



H – A SIDE –

SUFFIX ; -11



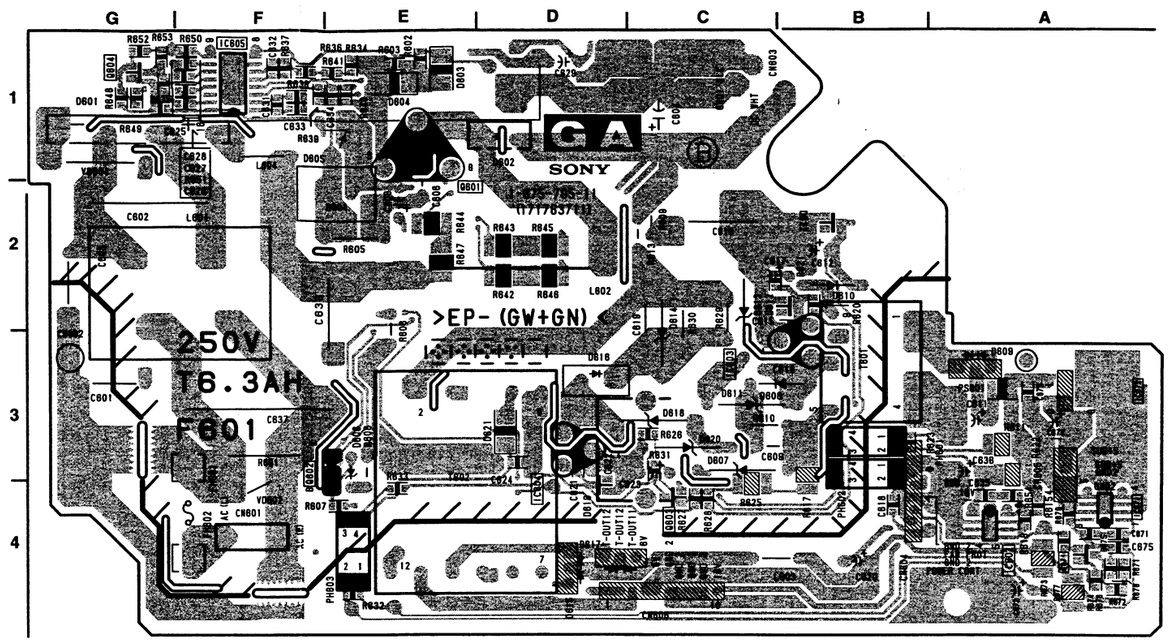
GA GA

GA

1-675-795-11

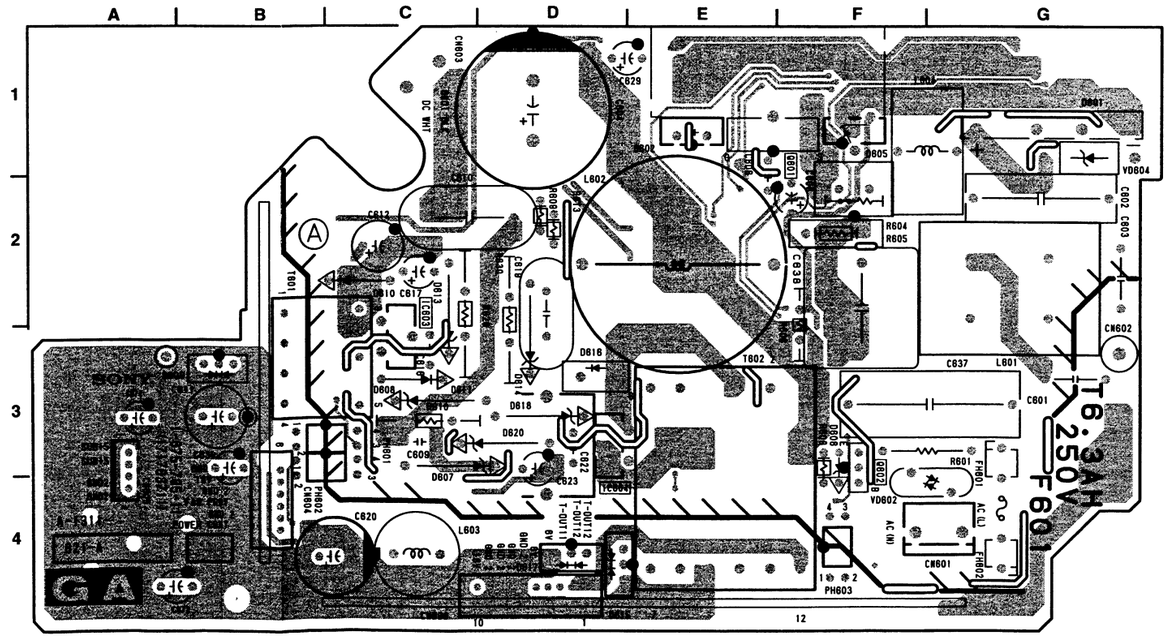
D601	G-1
D602	D-1
D603	* E-1
D604	* E-1
D605	E-1
D606	C-3
D607	C-3
D608	C-3
D609	B-3
D610	C-2
D611	C-3
D612	* C-2
D613	C-2
D614	C-3
D615	D-3
D616	D-3
D617	D-3
D618	C-3
D619	* D-3
D620	C-3
D621	* D-3
D622	* B-2
IC602	* A-4
IC603	C-2
IC603	* C-2
IC604	D-3
IC604	* D-3
IC605	* F-1
IC671	* A-3
IC671	* A-4
IC672	* A-3
Q601	E-1
Q601	* E-1
Q602	E-3
Q602	* F-3
Q603	* C-3
Q604	* G-1
VD602	E-3
VD604	G-1

*:B Side mount



GA – B SIDE –

SUFFIX ; -11

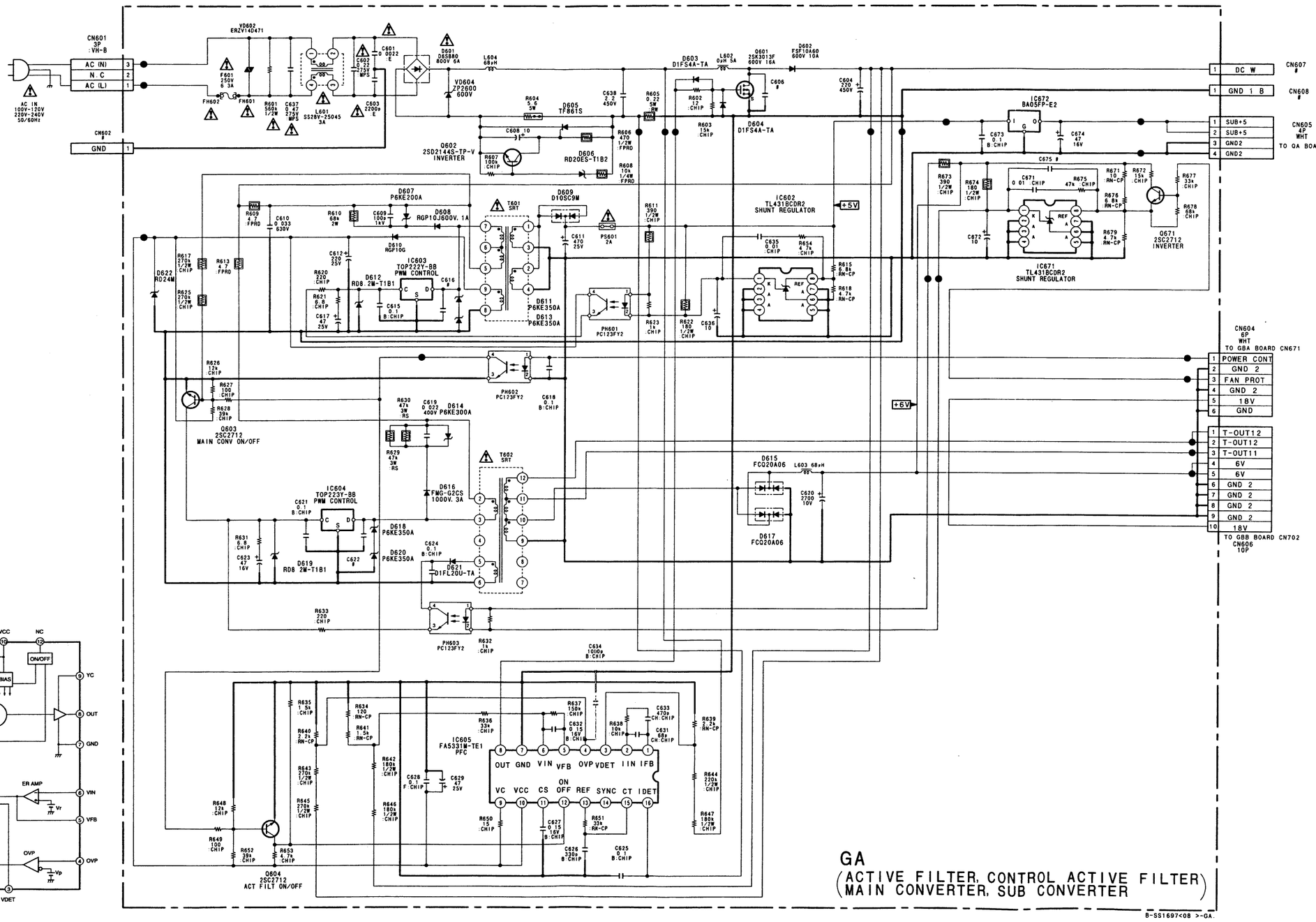


GA – A SIDE –

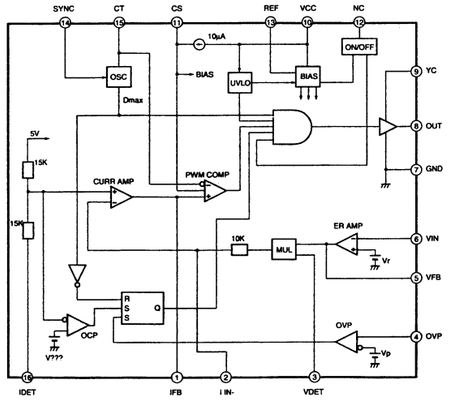
SUFFIX ; -11

• Refer to page 8-22 for Printed Wiring Board

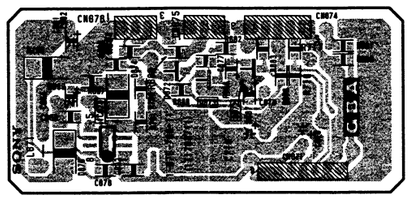
CAUTION: For continued protection against risk of fire, replace only with same type and rating of fuse.



FA5331M-TE1 (IC605)

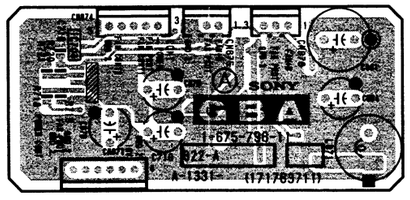


VPL-CS1



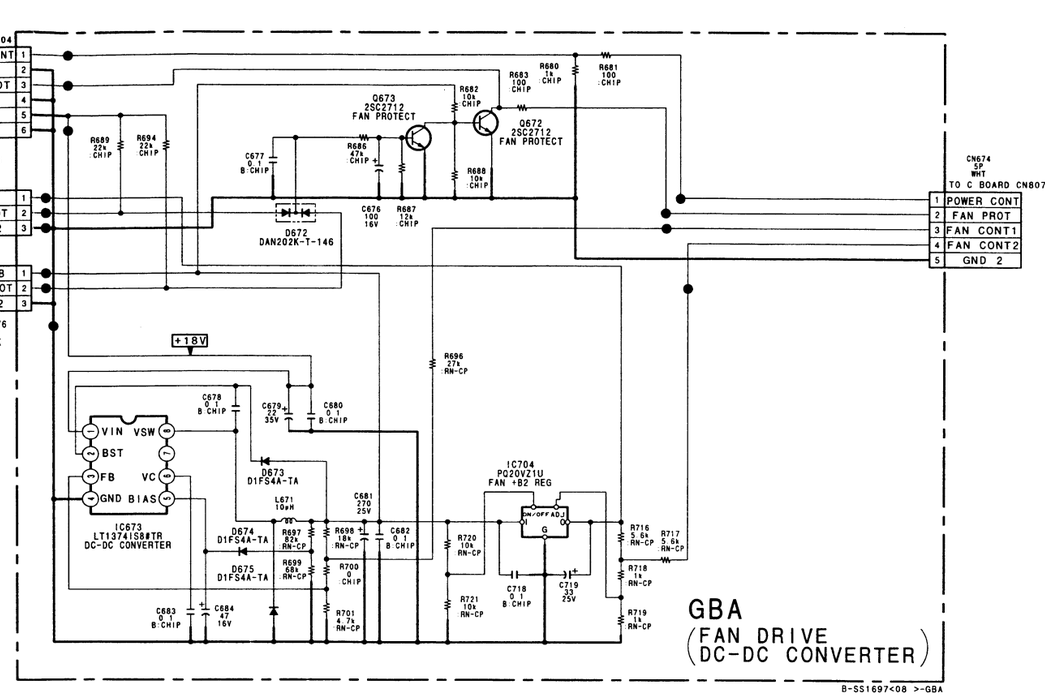
GBA – B SIDE –

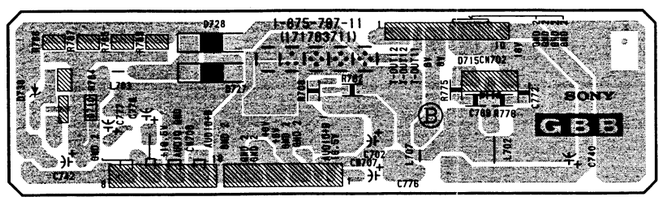
SUFFIX ; -11



GBA – A SIDE –

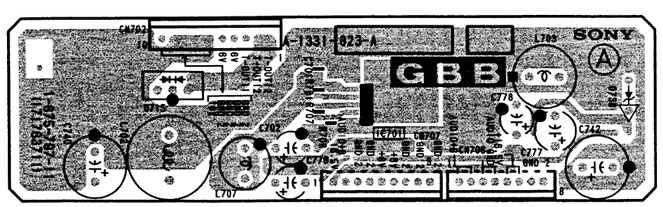
SUFFIX ; -11





GBB – B SIDE –

SUFFIX ; -11



GBB – A SIDE –

SUFFIX ; -11